ABSTRACT

This paper discusses a design urban project by a group of Master of Urban Design students at Faculty of Built Environment, Universiti Teknologi Malaysia. The aim of the project is to resolve the segregation developments between the new town and old town. It was caused by the ad-hoc development which is being deteriorated by piecemeal development in Dungun town. The project begun with site observation and visual assessment, and interviews to recognize the potential and constraint of the study area. Secondary data as supportive resource was obtained from literature review, local municipal’s briefing, technical report, and local plan. Subsequently, the implication of site analysis and synthesis mappings were used to translate as complements conceptual initiative for urban design master plan and appropriate design guidelines. From the design process, it was found that the town is facing with poor legibility and imageability, incompatible land use and building use, lack of connection throughout the circulation linkages and inadequate urban amenities.

Keywords: Revitalization, connection, legibility, edge, cultural and heritage

1. INTRODUCTION

Kuala Dungun was situated strategically at the river mouth of Sungai Dungun, Dungun district at Terengganu (located near to South China Sea), and between Pahang and Kelantan states. Kuala Dungun town is developed began from river port, fisherman village settlements, shophouse and Malay villages. It was used to be an iron mining town in 1940s for exporting iron ore from Bukit Besi. By 1970s, the mining industry was closed and later the town reverts back to fishing activities (Dungun Local Council, 2010). Nowadays, Kuala Dungun’s urban morphology influx with commercial activities and the development spread gradually to new town recognized as Sura Gate with the juxtaposition trunk road access directly to Kuala Terengganu district. The recent prompt development endured the imbalance urban land use pattern, building use, open spaces, streets, facilities and landscapes elements. Likewise the town remaining some heritage essences for instance old shophouses, traditional villages and leftover patch of Tiang Opal (known as old Sura jetty that functioned as port to export iron ore) in the conditions of deteriorated and abandoned. Thus impact of piecemeal development seriously unravelling between the old part and new part in Kuala Dungun town. The declining activities, poor services and inactive circumstances should undergoing renewal and restoration towards conserve heritage prominence and natural resources. Therefore, the enhancement of new development should be integrated and responded to existing urban structure, and places (English Partnerships, 2000; Bentley, I. et al., 1985). This urban design project considered to revitalization through reunite the old and new parts of Kuala Dungun. Ultimately, Kuala Dungun be able to achieve own identity through rejuvenation. As declared by Lynch (1981), an identity or sense of place can form place become unique, vivid, and memorable for people.

2. STUDY AIM

The aim of this study is to prepare urban design master plan and urban design guidelines to revitalize Kuala Dungun as a cultural and heritage town. This urban project enhances and refines the existing historical and natural assets in Kuala Dungun which consider the old and new development. More broadly, the understanding and responsive either urban design theories or implications is importance to form a rationales and feasible master plan.

3. URBAN DESIGN METHODOLOGY

The urban design studio project took 15 weeks to be completed. Basically, the urban design methodology is formed in three stages which are encompasses: 1) first site visit, literature reviews and proposed initial proposal, 2) second site visit, findings, inventory, and analysis, and
3) design rationale and conceptual translated into a design proposal. The entirely site study, design process and implication are shown in Figure 1.

Initially, site investigation and literature study is conducted by four different studio groups. Each team is required to specify and understanding the site background of Kuala Dungun through secondary data such as local plan, guidelines and internet resources. They are two site surveys that completed to obtain primary data. The preliminary site inventory is to familiarize the site milieu and the techniques are site inventory, visual assessment, observation, and interview with local peoples. Initial proposal is the outcome of first site visit with outline the future developments of Kuala Dungun without precisely and actual site context. Whereas, the second site study is to verify the site issues and meeting with local authority. From both contextual studies, the qualitative data gathering were analyzed and mapped based on the site opportunities or constraints.

Consequently, all the findings and analysis data were used to synthesis at the design stage. The design concept generated from site issues and justify for Kuala Dungun future development. In this design stage, conceptual development and schematic design remedies to the existing development especially the complements in land use pattern, imageability, and legibility (street, road, and visual characters). Finally, the combinations of overall design ideas described and transformed into graphic presentation layout such as master plan, cross-sections, sketches, and aerial view (3D). Design guidelines and studio report were summarized according to the detail design and master plan in which the project to be implemented.

![Flow chart illustrates the stages of site investigation, design process and design implementation.](image)

Figure 1: Flow chart illustrates the stages of site investigation, design process and design implementation.

4. FINDING AND DISCUSSION

From the findings and analysis (Figure 2), we found that main site issues are (1) poor imageability of Kuala Dungun to signify the identity as fisherman village or fishing port and furthermore no landmarks and nodes that indicate the visual cues to help people for way findings (Figure 3), (2) additionally, the new part and old part of the town is unorganized in term of building use and land use which is the function of the old town is declining to be compared with the new town (Figure 4), (3) inefficient circulation and linkages especially the pedestrian pathway located at main road, Jalan Yahya Ahmad and Jalan Tambun are not integrated, and (4) inadequate provision of urban amenities which is uncomfortable and unsafe to be used. These key issues occurred in Kuala Dungun confined the urban developments that situated at old part and new part of the town.

4.1 Design Concept

The master plan design concept suggested “where heritage meets the modern” is used to integrate new development in the old part of Kuala Dungun. Instead, these initiatives drive to reunite people, activities, and integrated physical and visual aspects within the segregation parts of Kuala Dungun town. Griffiths (1995) signify cultural initiatives as tool of urban revitalization. Hence, the revitalization is presenting and supporting Kuala Dungun cultural richness and heritage originality. Furthermore, the essences to respect and enhances the existing development becomes important approach to value the heritage entities and natural assets in Kuala Dungun town. Apart to conserve local identity, making connections were improve green network and leisure open spaces, convivial and robust public places, improve activities, and create visual linkages (English Partnerships, 2000). Lynch (1981) mentioned that a good city should provide optional accessibilities to fulfill users psychologically, socially and physically needs. Besides to increases the town mobility, public transportation routes is provided to ensure the movement system is sustainable. Again, the main concern is viable people to cohesive public spaces and connects with surroundings. In fact, bringing people back to the city also offers opportunities to stimulate town liveliness.

![The overall site analysis](image)

Figure 2: The overall site analysis

![The beach is the clear edges which helps people to orientate themselves in the town.](image)

Figure 3: The beach is the clear edges which helps people to orientate themselves in the town.

![Traditional shophouses are slowly disappearing and being replaced by the modern shophouses.](image)

Figure 4: Traditional shophouses are slowly disappearing and being replaced by the modern shophouses.
4.2 Master Plan and Design Guidelines

Master plan showed in Figure 5 is developed from the idea to amalgamate Kuala Dungun new town and old town development. In order to support the concept and approaches, three main zones were subdivided as: 1) heritage enclave (old town), 2) transitional zone (buffer zone), and 3) modern zone at Sura Gate (new town) described in Table 1.

Table 1: Master plan zoning

<table>
<thead>
<tr>
<th>Zone distribution</th>
<th>Functions and characteristics</th>
</tr>
</thead>
</table>
| Zone 1: Heritage Enclave | • The heritage enclave zone included riverfront and waterfront old shophouses, Pasar Besar Dungun and Padang Astaka.  
                              • Rebuilt and reconstruct the old shophouses by integrate with adaptive reuse.  
                              • View enhancement to increase the legibility and imageability.  
                              • Conserve the Malay traditional architecture at Kampung Sungai Udang and Kampung Tanah Lot. |
| Zone 2: Transitional zone | • This zone comprised Dungun Heritage and Art Institute (DHAI), Kuala Dungun museum and outdoor gallery, mix use, commercial and residential such as hotel apartment.  
                              • Acts as buffer to protect the heritage enclave so that there will be no encroachment of new development.  
                              • Incorporate Malay architectural style on the new development especially for institution (DHAI) and commercial buildings. |
| Zone 3: Modern zone | • The zones encompasses commercial zone (hypermarkets and restaurants), and high rise apartment for residential.  
                              • Increased compactness and intensity of development via commercial activities: Dungun plaza, Dungun shopping mall, and apartments.  
                              • Introducing modern architectural style.  
                              • Reconstruct the Sura Jetty and recreational park. |

Figure 5: Three conceptual zoning (Left): 1) Heritage enclave, 2) Transitional zone, 3) Modern zone and Kuala Dungun Master Plan (Right).

Apparently, the master plan proposal categorized into three zones which to imply the theme where heritage meets modern. The aim of revitalization program reflect Kuala Dungun imageability and identity by conserving traditional shophouses, fisherman village, as well as the authentic natural resource at riverfront (Sungai Dungun) and the scenic shoreline (at Pantai Teluk Lipat) which are legible to shape a visible city edge. As stated by Lynch (1960) the influences on imageability can be defines through physical character and visual prominent (such as street, water edge and open spaces). Similarly, the heritage niche is adaptive reused to support range of heritage events and activities nodes that located at riverfront park, street mall (at shophouses), market place, restaurant, living museum, souvenir shop and homestay at Malay traditional village (Kg Tanah lot and Kg Sungai Udang) (illustrated in Figure 6). In the heritage enclave zone, transportation hub provided bus rapid transit system and bus express services to convenient user to access from different destination.

Figure 6 :1) People enjoy leisure & recreational activities at Riverfront Park, 2) Street mall activities at shophouses, 3) Provide adequate amenities and facilities to encourage more people to walk in the old town and 4) Viewing towards heritage enclave zone.

In addition, a buffer zone (transitional area) attempt to function as urban protection in heritage conservation area and to avoid new expansion in heritage district. Meanwhile, Dungun Heritage and Art Institute (DHAI) and Dungun museum (Figure 7) were suggested to sustain local cultural and heritage entities. This institute portrays as core centre to conserve tangible and intangible cultural traits and heritage identities. The interdisciplinary education embraced traditional craft and artwork consist wood carving skills, traditional handicraft making, boat making, batik printing, songket weaving, and cultural art performance. The revivals of local culture that can help resolve the dilemma by social marginalization and impoverishment (Griffiths, 1995). For that reason, the education informally becomes a cultural and heritage catalyst with encourage local people to manifest and appreciate heritage pride, generate job opportunities,
boost local economic, and attracted more tourists and occupiers back to the Kuala Dungun town.

For modern zone at Sura Gate, new commercial and mix use were developed without obstacle. The encouragement of perimeter bloc design and landscape features creates continuity frontage along the bloc and street edges (English Partnerships, 2000). Bloc design was vital to increase of high permeability and connection in the city (Bentley, I. et al., 1985). Perimeter buildings interpreted as transition zone for new commercial, workplace, dynamic mix use, residential, and shopping mall. The numerous buildings and mix-frontages become fine grain to support public realm for urban activities such as economically viability, entertainments, recreational and compatible services. At the same time, people be able to benefit and closer to heritage asset correlation to new physical development such like park, street, commercial frontage and visual cue with connect directly to the Sura jetty (Figure 8) at the beachfront (Pantai Teluk Lipat). Yet the existence to resemble Sura jetty as important port to transport iron ore at past time achieved the concept to where the heritage meets the modern.

At last stage, the design guidelines and criteria were implement to balance the new development in old and modern part of Kuala Dungun. The incorporates master plan and design guideline for heritage shophouses, Malay traditional house, waterfront, streetscapes, new development, visual landscape control, and bus rapid transit system (BRTS) were use for the revitalization of Kuala Dungun.

CONCLUSION
This paper reviews the urban studio project in reviving Kuala Dungun as a cultural and heritage town. The dramatic changes and scatter development was a main problem restricting the old and new parts of the town. Nevertheless, the cognitive idea of revitalization to balance current rapid development via conserving heritage identities, inspiring culture and tradition sensibility through education, create job opportunity to increase local peoples’ incomes, preserve scenic natural resources, provides urban amenities and feasible facilities. It was an effort to increase and merging cultural and heritage as important tools for Kuala Dungun future developments. Indeed, Kuala Dungun approaches to become a unique place to interact between peoples, traditions, cultural and heritage entities.

ACKNOWLEDGEMENT
The authors like to express gratitude to studio master: Urban Design Studio 1, Assoc. Prof. Dr. Syed Zainol Abidin Idid and group members: Nadia, Fahd, Adeeb and Amzhar.

REFERENCES


Lee Yoke Lai received Dip in Architecture (2002) from Polytechnic Sultan Haji Ahmad Shah, and B.A Hons. in Landscape Architecture (2008) from Universiti Teknologi Malaysia. She is a Tutor in Department of Landscape Architecture, UTM. She is currently further her studies in Master in Urban Design, UTM.

Ismail Said received PhD (2006) in architecture from Universiti Teknologi Malaysia. He is an Associate Professor and Head Department of Landscape Architecture, Universiti Teknologi Malaysia. His current research interests are vernacular architecture and children's environment.