

ABSTRACT

The built environment provides a footnote to the history, helping to identify the places as a nation, rather than generically 'modern' or 'contemporary'. Historic buildings give us a glimpse of our past and lend character to our communities as well as serving practical purposes now. However, lack of expertise in the authorities' organization and industries to identify and implement the preservation works result in a slow and tedious conservation process. Generally, Malaysia is rich in architecture legacy especially buildings built during the colonial period. In particular Kuala Lumpur is like an open museum sprinkled with architectural landmarks built over the last 200 years, a blend of old colonial influences, Asian traditions, Malay Islamic inspirations, modern and post modern mix.

This paper will focus on analysis of adaptive reuse buildings located along Kuala Lumpur heritage trail. This paper aims to assess the viability of the heritage buildings especially after adaptive reuse process.

Assessment on the Viability of Adaptive Reuse for Heritage Buildings. Case study:Kuala Lumpur



why?

The main objectives of this research are:

1. To study the guidelines provided by the local authority relating to conservation of heritage buildings.
2. To observe the users experiences and satisfaction on the new function of the heritage buildings
3. To identify the current building image and spaces which are demanded to make adaptive reuse of heritage buildings viable

- 1- Heritage building is abandoned and later demolished because they cannot cater for today's demand.
- 2- There is a lack of expertise in the field results in slow and poor conservation works quality

BACKGROUND STUDY:



Kuala Lumpur Heritage Zones according to KLCP 2020

An inventory study undertaken in 1992 and 1993 by the Heritage Trust of Malaysia reveals that there are near 39,000 historic buildings built between 1800 and 1948 throughout the country which are worthy for preservation and conservation. However, these historic buildings are usually left by the advancement of technology, outgrown their intended function due to age structure. In order to successfully apply adaptive reuse concept, several basic principles should be considered. In adaptive reuse projects, the building envelope of the structure can be completely replaced, salvaged and preserved, or only specific elements restored (Howell & Frye, 2006). Adaptive reuse of heritage buildings is permitted subject to the authority's approval. No specific guidelines apply but the usage should be in line with the building use and should not degrade its historic significance. (Kuala Lumpur City Plan 2020)

According to KLCP 2020, heritage zones are categorised into 5 categories:

- 1) Primary Heritage Zone, 2) Secondary Heritage Zone, 3) Teritary Heritage Zone, 4) Buffer Zone, 5) Heritage Site

RESULTS

CASE STUDIES

FIELD STUDY & OBSERVATION

1. KL PAC



KL PAC was an abandoned rundown engineering workshop. Nowadays, it functions as Kuala Lumpur Performance Art Centre. Adaptive reuse concept manage to give lives to the old building.

The new (steel, glass) exists side by side with the old (brick) without damaging what is precious. The new roof is raised above the old one in order to make the theatre functional. The eventual architecture is as tactile as could possibly be, with the preserved bricks and metal trusses kept as a reminder of what the old world once was.



3. THE ASIAN HERITAGE ROW



Asian Heritage Row is located in Doraisami Street and Jalan Yap Ah Shak. It was built on 1921 as pre war double storey town houses.

Original bricks, tiles and timber were used in order to preserve the heritage image and colonial look, by maintaining as much as possible the original façade. Much of the old materials had to be treated with anti corrosion agents before they could be reused. Timber structure and trusses are supplemented with steel structures to strengthen and improves the structural properties.

In order to install modern facilities, the conservation works include a process of earthwork to accommodate power supplies, water, gas, sewage, fire prevention and other modern facilities (Asian Heritage Row Sdn Bhd, n.d).



Central Market is located at Jalan Hang Kasturi. Before it was used as an open wet market. Currently it is a centre for Malaysian culture, arts and crafts. It is a result of a successful adaptive reuse of the existing old historical building towards the end of the 1970s. Building plan has changed many times during different periods.



After adaptive reuse the façade was preserved. Floor has been tiled with two types of tiles; terracotta and ceramic tile. During adaptive reuse rehabilitation three sky bridges six double storey clusters and a mezzanine floor have been built. Also new columns have been built to support some of new structures. In 2008 it received another facility.



2. Conservation work

The conservation works involve repainting and replacement of original building material. Additional building structure complies with the principle of adaptive reuse (KLCP 2020). The additional structure is distinguishable from the original building.

1. Building type & function

Currently the shophouses remain their building function as a commercial building. However the upper floors have been converted to an office, storeroom or small retail.



3. Mechanical System

85% of the shophouses are air conditioned while the rest are mechanically ventilated. It is concluded that air conditioner unit is one of the current demand that makes adaptive reuse of heritage building viable in nowadays situation. Other modern mechanical demands include lighting fixtures and advertisement board. From the observation, it is concluded that the guidelines provided by the KLCP 2020 is not fully implemented on the heritage buildings. The compressor units are visible from the main streets with lighting fixtures and advertisement board covering the façade details.



Adaptive reuse concept in heritage building is very efficient methods in keeping the sense of human scale and homeliness that the old buildings have while keeping the heritage and identity in the city centre. Therefore architecturally interesting buildings need not be demolished to make way for new development.

Adaptive reuse of heritage building is efficient in term of providing current modern building services. Additional spaces can be acquired through amalgamation of heritage shophouses or additional building structure.

The guidelines provide a basic control on the addition and renovation of heritage buildings. Basic principle of adaptive reuse which requires the new addition to be readily distinguishable from the original building should also be considered.

The current demand of air conditioned rooms and better lighting fixtures which is lacking in the heritage building can be successfully adapted to the original design by following the guidelines provided by the authority. Modern mechanical requirement should be located on the Service zone as indicated in the KLCP 2020.

However, the implementation should be more strictly observed by the authority in order to maintain the heritage image of the buildings.

CONCLUSION

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