

**A STUDY OF REFURBISHMENT OF LISTED BUILDINGS INTO
A NEW FACILITIES**

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Abstrak

Penyelidikan ini merupakan kajian tentang pemuliharaan bangunan tua dan bangunan bersejarah di Malaysia. Penyelidikan ini juga bertujuan untuk mendalami proses yang ada pada projek-projek pemulihan di Malaysia dengan fokus utama pada pedoman pada tahap pemulihan. Selain itu, kajian ini menjelaskan tentang pemulihan bangunan dan proses pembaharuan serta perbaikan dari struktur bangunan terutamanya. Tujuan kajian ini dilakukan adalah untuk menekankan pentingnya perbaikan pada bangunan tua dan bersejarah tanpa membuat perubahan besar di muka depan dan struktur bangunan. Penyelidikan ini juga penting dalam rangka kajian pemanfaatan ruang untuk pengguna selepas bangunan telah diubahsuai dan akhir sekali untuk menentukan bangunan komersil yang telah diperbaharui untuk kemudahan baru dan mencari daerah yang paling pesat dengan pemuliharaan dan pemuliharaan bangunan. Proses ini merangkumi tentang keseluruhan aktiviti, bermula dari pembersihan interior atau eksterior dari suatu. Semua proses memerlukan penyelenggaraan untuk menghalang bangunan kembali ke keadaan yang lebih teruk akibat masa dan penggunaan. Pemulihan bangunan boleh dianggap sebagai yang menetapkan kegiatan penyelenggaraan dari tahun-ke tahun. Penyelidikan ini telah dilakukan di Melaka, Batu Pahat dan Muar. Hal ini kerana, terdapat banyak bangunan tua dan bangunan bersejarah yang dibina pada masa Kolonial Inggeris dan lain-lain. Rekaan yang unik memberikan nilai tambah estetika pelancong. Berdasarkan hasil kajian ini, Melaka adalah daerah yang paling cepat dengan pembangunan pemugaran kerana Melaka dianugerahkan dengan Senarai Warisan Dunia oleh UNESCO. Hal ini penting bagi Melaka untuk mempertahankan nilai sejarah dan estetika bangunan. Batu Pahat dijumpai kawasan paling lambat dalam pemulihan bangunan.

Abstract

This research is a study on the refurbishment of old building and heritage building in Malaysia. This research intends to highlight the existing practice on rehabilitation projects in Malaysia with the main focus on guidelines at rehabilitation work stages. Besides that, this research describes building restoration and the process of the renewal and refurbishment of the fabric of a building. The objectives of doing this research are to emphasize the importance of refurbishment in order to reserve an old and historical building without make big changes at the façade and structure of the buildings. This research also important in order to study on the space utilization for internal after the buildings have been refurbished and finally to determine various of commercial building that have been refurbished for a new facilities and find the most rapidly area with the preservation and conservation of buildings. The phase covers a wide span of activities, from the cleaning of the interior or exterior of a building. Buildings are structures which have, from time to time, particular purposes. They require ongoing maintenance to prevent them falling into disrepair as a result of the ravages of time and use. Building restoration can be thought of as that set of activities which are greater than year-to-year maintenance. This research was held at Malacca, Batu Pahat and Muar. This is because; there is many old building and historical building that constructed during the British Colonial and others. The design gave an aesthetic value to the tourist. Based on this research, Malacca is the most rapid area with a refurbishment development because Malacca was awarded with World Heritage List by UNESCO. It is important for Malacca to maintain their historic and aesthetic value of the buildings. Batu Pahat was found the slowest region in refurbishment development.

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2.	http://www.malaysiadesignarchive.org
3.	http://maps.google.com.my
4.	http://www.vintagemalaya.com/
5.	http://www.batupahat.org

CHAPTER 1

INTRODUCTION

1.0 Title of the project

Management of refurbishment listed buildings into new facilities

1.1 Synopsis:

When structures outlast the society that gave rise to their original intent, what is the best way to update their function? The aim of this project is to find the guidelines and rules that have been given by local authority without disturbing their aesthetic value, its need a careful planning to maintain their historic value while changing their function to other facilities. This project will also study about the effectiveness and comfort ability the users in term of comfort ability. This will show the effectiveness of the guidelines and regulations that have been provided. Besides that, students need to find the job requirement that involved in order transforming old buildings into new facilities.

2.0 Introduction

Refurbishment refers to upgrade, major repairs work, renovations, alterations, conversions, extensions and modernization of existing building, but exclude routine maintenance and cleaning work. Refurbishment project is risky, complex and less predictable task within the construction industry. The trend is now spreading over Malaysia. [1]

Building refurbishment is one of the important sectors in most developed countries. In Malaysia, this sector is becoming an important economic driver due to existence of high number of ageing buildings, building deterioration and obsolescence. Many of these buildings need to be refurbished. However, study in refurbishment area in Malaysia rather limited. The majority of the studies focus on issues related to new-build construction. [1]

However, there is no comprehensive and accurate data on the value of refurbishment work in Malaysia. Most local authorities do not have complete database on the actual number of refurbishment works being carried out. The only available data has been compiled by the Malaysian Construction Industry Development Board (CIDB).

Building refurbishment is often considered as a technical matter that concerns technical experts and engineers. However, every refurbishment operation modifies the human living environment. [5] A narrow technical or financial vision can deteriorate people's living environment, while a global approach can upgrade it to current comfort standards, ecological requirements, and optimal energy performance.

A. Ghafar Ahmad, a presenter at the National Seminar on Urban and Regional Planning, University Technology Malaysia, Johor Bahru, Johor said that building conservationists need to give more attention to maintaining and improving the built environment in cities or towns in Malaysia. Where demolition of old buildings has been a common practice in the development of cities or towns in the country, it is essential for any local authorities to carry out the work of spot listing and grading local heritage buildings or monuments in their areas. Experience over the world has shown that listing buildings may have social and political repercussions as well as architectural significance. It is important for the availability of the whole system that procedures are seen to be fair and impersonal yet achieve control over areas and buildings considered important in this context. [5]

The practice of spot listing and grading is important in an effort to save heritage buildings from being left for market forces. It is generally considered as a new phenomenon in the conservation of heritage buildings in Malaysia. However, it has been widely practiced in many western countries including the United Kingdom. [5]

Building conservation has long been of concern, although its popular application is relatively recent in origin, particularly in Malaysia. In the past few years, many historic buildings have been preserved and conserved while others have been converted to become premises for a bank, restaurant, information centre or a printing office. Malaysia is one of the fortunate countries that have many historic buildings which are of immense architectural and historical value. An inventory study undertaken in 1992 and 1993 at the government's request by the Heritage Trust of Malaysia in conjunction with

the National Museum, the Housing and Local Government Ministry and Faculty of Built Environment, Malaysia University of Technology (UTM) reveals that there are near 39,000 historic buildings built between 1800 and 1948 throughout the country which are worthy for preservation and conservation. Buildings built within these periods are classified as 'pre-war buildings' due to their year of build, ranging from 1800 to 1948. [6]

No	States	Number of Historical Buildings	Percentage of Historical Building (%)
1.	Johor	2,323	32.75
2.	Malacca	2,177	30.68
3.	Pahang	831	11.71
Total		7094	100.00

Table 1: The distribution of pre-war urban buildings throughout various states in Malaysia.

Through observation, many buildings in Malaysia are under-or wrongly used. This would induce the building to become dilapidated. The lack of maintenance coupled with social problems, which can lead to vandalism and abuse increase the rate of wear and tear of buildings. [1] The building owners could have the option to move out from the premise and build a new one on a different location, rebuild the building on the same site or refurbish the existing building.

Malaysia's history is largely embedded in its architecture, social and cultural fabric, and of these the architectural fabric is probably the most enduring one. Recently, the historical rehabilitation and maintenance can be considered as a popular method use in Malaysia. In fact, heritage building is an important element in town development which can be seen in some cities

in the world. It plays an important role in defining the landmark within the urban area as well as generating income and boosting the tourism industry

The refurbishment stage will occur at some point in the lifespan of buildings. As with the original construction stage, thought should be given throughout the design and contracting stages as to how the later refurbishment of any project can be undertaken.[3] Typically, refurbishment is often carried out under a time pressured environment and both refurbishment and rebuild produce costs and disruption to the operation of the occupier business organization.

Refurbishment works become an alternative when a building has reach to the end of its service life, or fails to perform as required in its use.[2] However, refurbishment works influenced by a building's physical deterioration, and obsolescence such as change in use, economic change, investment decisions, and historical value. Similarly, noted that building refurbishment is initiated by physical deterioration and obsolescence, which includes change in technology, social, image, legal and environment.

1.3 Problem statement

Culture and heritage are often considered as the fundamental aspects underpinning a country's national identity. [20] Cultural heritage including historic buildings, sites, cultures, and other invaluable assets are the distinguished elements that encapsulated a nation's soul and spirits. The existing building in Malaysia combined with the colonist element in the design and material used of the buildings.

Therefore these elements must be recognized and preserved in order to protect and continue the existing sense of space and time. Much of this protection can be accomplished simply with the maintenance and repairs the existing buildings. [21]

New refurbishment on the old buildings by a proper guideline must be enhancing the existing histories character and still can be identified as significant sense on its own. But in Malaysia, the guidelines that have been produced and gazette by local authority are still not detailed. Thus, public awareness about the importance of historical and old building to our country is very low. [22]

In order to maintain and protect the value, those elements must be recognized and preserved so that it can continue the existing sense of space and time. The maintenance and repair must be done according to the rules and guidelines by the professional people

1.4 Objectives

The objectives for this research are;

1. To emphasize the importance of refurbishment in order to reserve an old and historical building without make big changes at the façade and structure of the buildings.
2. To study on the space utilization for internal after the buildings have been refurbished.
3. To determine several of commercial building that have been refurbished for a new facilities and find the most rapidly area with the preservation and conservation of buildings.

1.5 Scope of work

The scope of works that involved in this study is;

1. To classify the suitable guideline of refurbishment based on
 - Type of construction
 - Material
 - Location
 - Fabrics
 - Structure
2. Study on building based on the user capacity.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter discussed about a literature review of a particular subject area and particular subject area within a certain period. It is also review a previous work relating to research problem which is review of previous work relating to the methodology and review of previous work relating to result.

2.2 Phrase Definition

2.2.1 Listed Building

A listed building is one which is of special architectural or historic interest. It is protected by law and is identified by being included on a list of all buildings protected in this way. The list is compiled by Central Government [7]. Listed buildings are legally protected and consent is normally required usually from the local planning authority for any alterations that are carried out to the building that would affect its character. This includes work on both the outside and the inside of the building since the whole of a listed building is protected, not just the frontage. The protection provided by listing also extends beyond the principal building to features such as boundary walls, railings and any buildings that stand within the curtilage of the listed building. While the grading is taken as an indicator of the relative importance of the building it has nothing to do with the legal requirements that apply to it. Listed buildings are allocated one of three grades; Grade I, II* or III which is;

Grade I: these are buildings of outstanding interest.

Grade II*: these are particularly important buildings

Grade II: these are buildings of special interest which warrant every effort being made to preserve them.

The following are the main criteria, which central government uses in deciding which buildings to include on the statutory list:

- Architectural interest: Buildings of importance because of their design, decoration and craftsmanship; also important examples of particular building types and techniques and buildings of significant plan forms;

- **Historic Interest:** Illustrations of important aspects of the nation's social, economic, cultural or military history;
- **Historic Association:** Close historical association with nationally important people or events;
- **Group value:** especially where buildings comprise an important architectural or historic group or a fine example of planning e.g. squares terraces or model villages.

Listed buildings are legally protected and consent is normally required usually from the local planning authority for any alterations that are carried out to the building that would affect its character

A listed building is a building, object or structure that has been judged to be of national importance in terms of architectural or historic interest and included on a special register, called the List of Buildings of Special Architectural or Historic Interest. When a building is listed, it is listed in its entirety, which means that both the exterior and the interior are protected. In addition, any object or structure fixed to the building, and any object or structure within the cartilage of the building, which although not fixed to the building, forms part of the land and has done so since before 1 July 1948, are treated as part of the listed building. Listed building control is a type of planning control, which protects buildings of special architectural or historical interest.

These controls are in addition to any planning regulations which would normally apply. Listed building status can also resulted in the requirement for planning permission where it would not ordinarily be required. This special form of control is intended to prevent the unrestricted demolition, alteration or