THE CHALLENGES IN FAÇADE TRANSFORMATION DESIGNS OF JONKER MELAKA HERITAGE ZONE

Samihah Ngah¹*, Azimin Samsul Mohd Tazilan ² and Mohamad Norzamani Mat Daud³
¹²Department of Architecture, Faculty of Engineering & Architecture, National University of Malaysia
² Institute for Environment and Development (LESTARI), National University of Malaysia
¹³Department of Architecture Technology, Segamat Community College 2

* Corresponding author:
samihahngah@gmail.com

ABSTRACT

The Jonker Melaka Heritage Zone is a tourism site with its own unique heritage value: a row of old buildings and shop houses with the architectural quality and building layout rich with colonial relics. However, changes in the function of the area have altered the exact nature of the building facade and caused some problems in the building in the area. Therefore, this study was conducted to identify the problems and factors affecting the building façade changes. Field studies, document analyses, literature reviews, and interviews were conducted to collect and analyse research findings. Four main problems that are the causes of the Jonker Heritage Zone building façade transformation were identified: (i) impairment on facade element, (ii) changes and current lifestyle effects, (iii) requirements and effect of consumer’s will, and (iv) heritage building conservation approach which is not in accordance with the Guidelines for Heritage Building Conservation. This study contributes to the knowledge and helps local authorities make guidelines in addressing issues pertaining to urban heritage, particularly in preserving the facade of the building in the Jonker Heritage Zone.

Keywords: Jonker Heritage Zone, Facade, Lifestyle, Consumer Needs, Preservation.

1. INTRODUCTION

The recognition of Melaka and George Town, Penang by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as world heritage sites on July 7, 2008 has made the Jonker Heritage Zone (Figure 1) a more popular place to be visited.

Figure 1: Jonker Melaka Heritage Zone.
Choy (2013) stated that the perception of a traveller generally involves five senses, namely sight, hearing, taste, touch, and smell, to evaluate the hospitality and services of the tourism products offered. In addition, Zuraidi et al. (2011) reported on the importance of building conservation because it has an invaluable value of emotion, culture, and history. According to Choy et al. (2014), the main component of tourism development in most parts of the world is based on heritage elements. So, the unique Jonker Heritage Zone with its own unique architecture needs to be maintained. Otherwise, the value of architecture, the country’s historical resources, educational resources, and interesting locations for travellers will vanish, as emphasized by Ahmad (1994) and Zuraidi et al. (2011). A study conducted by Ramli et al. (2015) showed that 142 respondents or 19.3% were very satisfied with Melaka as a travel site while 378 respondents or 51.4% were satisfied.

Thus, the facade of existing heritage buildings in the Jonker Heritage Zone must be preserved to attract more tourists. According to Saleh and Che Leh (2012), the maintenance and conservation of facade elements of legacy buildings are very important. A study conducted by Mohd Baroldin and Mohd Din (2012) showed that there are 9 facade categories in the Jonker Heritage Zone (Figure 2). However, after nearly 300 years, various problems exist in maintaining the facade of the Jonker Heritage Zone (Samadi et al., 2007).

Based on the study, one of the identified problems is that many of the heritage buildings are not well preserved, unoccupied, and damaged. Some of the building elements (roofs, doors, windows, poles, and carvings) are deteriorating, caused by biological agents such as fungi, insects, and living plants, as an effect of poor building conservation. Samadi et al. (2007) also agreed and explained that the facade of the building is easily damaged by termites, fungi, moss, and promotion of idle plant life on the roofs and walls of the building. Ahmad and Abdul Rahman (2010) asserted that the facade elements can be damaged by salt attacks and rising humidity. Besides that, the equatorial weather in Malaysia and the age of the buildings themselves, some of which are over 200 years, also contribute directly to the destruction of existing heritage buildings. Not only that, the quality of the facade of natural buildings also declines gradually with the increase in age. This statement is supported by Johar et al. (2011), who stated that biological agents such as fungi and insects cause a lot of disabilities, especially to wooden structures. Fungal damages include soft decay fungi, decayed war, and white rot; while insect damages are caused by beetles, termites, ants, and bees. Mokhtar (2006) in his study entitled ‘Damage and Degradation of Concrete Structure In Malaysia’, emphasised that biological actions caused by moss, algae, and plant roots entering concrete through cracks and weakened points may result in increased force and cause cracking of the building.

Another problem is that many legacy buildings are renovated and the facade of the buildings are changed to fit the function. For example, when residential buildings are converted to commercial buildings, small doors have to be converted into larger openings. During an interview with Azimin Tazilan on 12 February 2016, one of the shopkeepers at Jonker Street explained that the need and influence of consumer demands also caused changes to the facade of the building. Azimin Tazilan affirms that many legacy buildings are renovated to meet the needs of different users according to their background, culture, purchasing power, and taste, thus neglecting the historical and aesthetic values of the buildings.

2. METHODOLOGY

The study on Jonker Melaka Heritage Zone involved qualitative methods such as field studies (such as observations, surveys, taking pictures and notes), document analyses (such as documents, journals, books, and articles),
literature reviews, and interviews (owners and operators of shop houses; Erne Hamsah, the Conservation Architect at Historic Melaka City Council; and tourists). Creswell (2013) also emphasises that qualitative research studies such as early surveys, case studies, and observations of events are also more natural and require long analysis of human involvement. This study involved five phases which were (i) identifying the problem that affects the façade of a building in the Jonker Melaka Heritage Zone, (ii) identifying the objective of the research, (iii) identifying the methodology, (iv) collecting the data, and (v) analysing the data, as emphasised by Naoum (1998), Ismail (2016) and Tazilan (2014). The framework for the study is summarised in Figure 3.

Figure 3: The framework of the study

An overall field study of Jonker Melaka Heritage Zone was conducted in May 2013 until November 2017. The criteria for the field study is shown in Table 1: (i) Usage of building (Used or Unused), (ii) Deterioration of building façade elements: roofs, doors, windows, pillars, and carvings (Yes or No), (iii) Influence of current lifestyle changes (Yes or No), (iv) Influence on user requirements (Available or Not Available) and (v) Approach to conservation work (Available or Not Available). The study focused on the façade elements such as roofs, doors, windows, pillars, and carvings, and also the function of each building.

<table>
<thead>
<tr>
<th>Number</th>
<th>Name of Road</th>
<th>Building Criteria</th>
<th>Number of Building/Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Jalan Tun Tan Cheng</td>
<td>Early Shophouses / Neo-Classic/ Art Deco</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>Jalan Hang Jebat</td>
<td>Early Shophouses/ Eclectic/ Neo-Classic/ have an interesting ornament on the building</td>
<td>83</td>
</tr>
<tr>
<td>3</td>
<td>Lorong Hang Jebat</td>
<td>Early Shophouses</td>
<td>87</td>
</tr>
</tbody>
</table>

Three roads were selected for samples in this study. The selected roads were Jalan Tun Tan Cheng Lock, Jalan Hang Jebat, and Lorong Hang Jebat. The three roads were selected based on the criteria outlined in Table 2. Some or all of the buildings from the chosen streets have an early architectural style or neo-classical style, the same criteria, and the same typical category. They also have ornaments with fine granules on the façade of the building, giving a prominent look for the building and making the building look more attractive.

Table 2: Street names, building criteria and building number.

The detailed study of each building along the three selected roads, which were Jalan Hang Jebat (83 units), Jalan Tun Tan Cheng Lock (33 units), and Lorong Hang Jebat (87 units), was conducted from 2013 until 2017. All data were collected, checked against, and compared with the early inventory data from the Historic Melaka City Council, literature review, and document analyses. The differences of the façade elements were also checked with the Malaysian conservation rules and regulations imposed by the local authority and also the guidelines by UNESCO.

3. RESULT AND DISCUSSION

In general, many building facades are changed to maintain business activities, but there are also shop owners who let deterioration and visual impairment happen (Samadi & Mohd Yunus, 2012). Based on the research, the researchers classified the problems affecting the façade of buildings in the Jonker Heritage Zone to be as follows: (i) impairment on façade element, (ii) changes and current lifestyle effects, (iii) requirements and effect of consumer’s will, and (iv) an approach to heritage building conservation approach which is not in accordance with the Guidelines for Heritage Building Conservation (Department of National Heritage, 2016). Table 3 shows the objective, problems, methodology, analysis method, and results of the study.
Table 3: Objective, problems, methodology, analysis method and results of the study.

<table>
<thead>
<tr>
<th>No</th>
<th>Objective</th>
<th>Research Question</th>
<th>Methodology</th>
<th>Analysis Method</th>
<th>Result</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To identify the problem that affects the facade of a building in the Jokker Melaka Heritage Zone</td>
<td>What are the problems that affect the facade of a building in the Jokker Melaka Heritage Zone?</td>
<td>Qualitative Approach: 1. Field study</td>
<td>2. Document analyses</td>
<td>3. Literature review</td>
<td>4. Interview</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Frequency</td>
<td>Table</td>
<td>Result 2: Changes and current lifestyle effects</td>
<td>1. 94.0% (78 units) at Jalan Hang Jebat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Result 3: Requirements and effect of consumer’s will</td>
<td>1. 87.9% (79 units) at Jalan Hang Jebat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Result 4: An approach to conserve heritage buildings which is not accordance with the Guidelines for Heritage Building Conservation (Department of National Heritage, 2016)</td>
<td>1. 91.8% (76 units) at Jalan Hang Jebat</td>
</tr>
</tbody>
</table>

3.1 Impairment on Facade Element

Lorong Hang Jebat has the highest percentage of deterioration on the facade element of the building, which is 86.2% (75 units). It is followed by Jalan Hang Jebat at 59.0% (49 units) and Jalan Tun Tan Cheng Lock by 51.5% (17 units). The deterioration of facade elements such as roofs, walls, doors, windows, pillars, and carvings on buildings is significant. The decline is due to (i) damaged and abandoned buildings and (ii) natural factors (equatorial weather in Malaysia, the age of the building that exceeds 200 years, pests, idle plants, etc.).

a) Damaged and Abandoned Buildings

Defection and abandonment caused major damages to the building facade. Buildings No. 22 and No. 163 at Jalan Tun Tan Cheng Lock (Figure 4) were found to have suffered a lot of damage and left idle. A similar condition was seen for Buildings No. 97, No. 125, and No. 127 at Jalan Hang Jebat (Figure 5). In October 2013, Building No. 127 was abandoned. In April 2017, there was no change in the maintenance and conservation process on the building.

b) Natural Factor

Natural factors such as hot and humid weather conditions encourage plant growth in the walls of the building. Furthermore, pest infestation such as termites accelerates the decaying process on the structure of woodwork (Figure 4 and Figure 5).

Figure 4: Abandoned and damaged buildings without occupants. Building No. 22 and Building No. 163 at Jalan Tun Tan Cheng Lock (2016).

Figure 5: Buildings No. 97, 110, 125, and 127 at Jalan Hang Jebat (2016).

3.2 Changes and Current Lifestyle Effects

Table 3 illustrates the percentage of buildings influenced by the current lifestyle. At Lorong Hang Jebat, 82.8% (72 units) of the buildings have changed, while 84.4% (28 units) of the buildings have changed at Jalan Tun Tan Cheng Lock. The highest changes in building facade is at Jalan Hang Jebat, which is 94.0% (80 units).

Figure 6 shows Building No. 33 at Lorong Hang Jebat which was built around 1851–1870. There has been a significant change in the overall structure of the building. The original building was only two levels high but it was modified to five levels. The building has been run by a traditional food company since 2002. It is clear that the renovation of the building did not follow the conservation guidelines outlined by International Council on Monuments and Sites (ICOMOS) (1987) and the Heritage Building Conservation Guidelines (Department of National Heritage, 2016).
Figure 6: Differences of Building No. 33 at Lorong Hang Jebat in the 1890s and 2017.

In addition, the construction of a Hard Rock Café (HRC) at Jonker Melaka Heritage Zone entrance (Figure 7) is a modern lifestyle influence and is less in line with an environment that comprises historic buildings. Zuraidi et al. (2011) emphasised that the construction of new buildings around the site of the heritage building is not suitable at all. However, when Erne Hamsah from the Conservation Architects Department of Building Control Division, Malacca Historical City Council was interviewed on April 30, 2014, the reason given was that the HRC design still has the features of old architecture. The results prove that lifestyles changes in the community also affect the appearance of the building facade.

Figure 7: Hard Rock Café (HRC) Melaka (2017).

3.3 Requirements and Effect of Consumer’s Will

Jalan Hang Jebat has the highest number of buildings affected by the impact of consumer needs, which is 80 units (96.4%). Meanwhile, the number of buildings affected at Jalan Tun Tan Cheng Lock is 29 (87.9%) while at Lorong Hang Jebat is 66 (75.9%). Starting from 2014, Melaka has undergone rapid changes in development. If a business is unable to meet the needs and requirements of consumers or buyers, its business activities and the services offered may be affected. Consumers have a great influence in determining the types of businesses and services offered. If consumer needs are ignored, the business and services offered cannot raise the trader’s economic status. For example, Building No. 45 at Lorong Hang Jebat (Figure 8) was built around 1851–1870 and is under the Early Period category. The main door was renovated by the previous owner and is different from the original building (Figure 9). Other elements are still maintained. In 2013, it operated as an art gallery and guest house but became a traditional food shop by 2016. Likewise, Building No. 64 at Jalan Hang Jebat operated as an antique store in 2005 but became a Chinese restaurant in 2015 (Figure 10). The facade elements are maintained but the interior layout was modified according to the suitability of business activities.

Figure 8: Building No. 45 at Lorong Hang Jebat, Melaka

Figure 9: Building façade in Early Period (1851–1870s), Syed Idid (1995).
3.4 Approach to Heritage Building Conservation which is not in accordance with the Guidelines for Heritage Building Conservation.

Table 3 shows that 96.6% (84 units) of conservation work approaches at Lorong Hang Jebat do not follow conservation guidelines, 91.6% (76 units) at Jalan Hang Jebat, and 78.8% (26 units) at Jalan Tun Tan Cheng Lock. Hamilton and Md Ali (2002) stated that the damage and renovation of the heritage building were ignored by the original owner and demolished because of the insistence of developers and lack of community concerns. Ahmad (1994) explained that most people lack the understanding of the term conservation and consider the conservation of heritage buildings to be just like the usual renovation. A proof of principle study conducted by Kamal and Ahmad (2008) found that 87% of legacy buildings need conservation efforts while 78% of the buildings do not use appropriate conservation approaches. Harun et al. (2010) listed some conservation approaches for reference during conservation work on legacy buildings, as shown in Table 4.

Samadi et al. (2007) pointed out that the factors driving this situation are the difficulty of shop owners to get qualified consultants in the retention and conservation work of buildings and the high cost of conservation compared to the renovation of new buildings. The cost of handling regulatory agencies for the preservation and conservation of historic buildings is higher by 30% compared to normal buildings (Yung & Chan, 2012). Many building maintenance and conservation works in the Jonker Heritage Zone are not in accordance with the ethics of conservation works set out in the 2016 Heritage Building Conservation Guidelines issued by the Department of National Heritage Malaysia. Figure 11 shows five key ethics that need to be applied in conservation work under the 2016 Heritage Building Conservation Guidelines.

Table 4: Conservation Approach (Harun, et al, 2010)

<table>
<thead>
<tr>
<th>Concept of Urban Conservation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation (Pemuliharaan)</td>
<td>Work on repairing the building condition using materials that are almost as likely as when the building was first constructed.</td>
</tr>
<tr>
<td>Restoration (Pembinaan / Pengembalian Semula)</td>
<td>Repairing works by maintaining the authenticity of the architecture and material at a certain time as thought fit or as good as the original and subsequently to the original use.</td>
</tr>
<tr>
<td>Reconstruction (Pembinaan semula)</td>
<td>Reconstruction is done on historic buildings that have been destroyed due to human and environmental factors. The construction uses original materials and techniques in their original form.</td>
</tr>
<tr>
<td>Preservation (Pengekalan/ Pemugaran)</td>
<td>Works to ensure that a place is in its original state and prevented from any obstruction or damage.</td>
</tr>
</tbody>
</table>

Figure 11: The process of conservation of heritage buildings (Department of National Heritage, 2016)

Building conservation works must follow the guidelines issued by the Heritage Building Guidelines 2016 (Figure 12). The six processes include
(i) preservation, (ii) identification and maintenance of the building element, (iii) replacement of the damaged element, (iv) care and maintenance, (v) modifications and additions, and (vi) new additional or new building, must follow to ensure that all conservation work is done according to the correct procedure.

**Figure 12: Department of National Heritage Documentation Requirements (Department of National Heritage, 2016)**

At the Jonker Heritage Zone, many buildings were renovated according to the tastes and wants of owners or building operators. Furthermore, there are also additions to the original building such as veranda, stairs, shop signage, etc. (Figure 13).

**Figure 13: Addition of signage, veranda and stairs on buildings.**

Restoration work in the facade of Building No. 82 at Lorong Hang Jebat (Figure 14) was done and no signs for conservation work were shown.

**Figure 14: Building No. 82 at Lorong Hang Jebat (2013).**

Based on Figure 15 and Table 5, we found many changes to the facade elements of buildings, such as doors and windows, between 2005 and 2016. Also, there are additions of windows and physical changes of doors and windows.

**Figure 15: Differences in Buildings No. 46 and No. 48 at Jalan Hang Jebat (2005 and 2016).**
Table 5: Facet transformation of building facades No. 46 and No. 48 at Jalan Hang Jebat for 2005 and 2016.

<table>
<thead>
<tr>
<th>Element</th>
<th>2005</th>
<th>2016</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Door</td>
<td></td>
<td></td>
<td>2005 Arc-shaped door 2016 Glass door with wooden frame</td>
</tr>
<tr>
<td>Window level 1</td>
<td></td>
<td></td>
<td>2005 The entire window is wooden and there is an air hole 2016 Glass window with wooden frames</td>
</tr>
<tr>
<td>Window Ground Floor</td>
<td></td>
<td></td>
<td>2005 No window 2016 Additional glass window with wooden frame</td>
</tr>
<tr>
<td>Door and Window Ground Floor</td>
<td>2005</td>
<td>2016</td>
<td>Arc-shaped door and window Glass doors and windows and there is an additional glass window</td>
</tr>
</tbody>
</table>

4. CONCLUSION

The findings show that many problems affect the facades of the building at Jonker Heritage Zone, even after being declared World Heritage City by UNESCO in 2008. The deterioration of the facade elements gives a poor visual impression and shows that the maintenance of the building is not done well and weak. This may affect the image or character of the building and may affect the tourism industry in the Jonker Heritage Zone. The emergence of modern buildings in the study area, if not adequately controlled, also impacts the legacy buildings. In terms of openings such as doors and windows, there are significant changes. The old opening element has wooden doors and windows while new elements use glass material. The height of the old building was only one storey but the new building has been renovated to five floors.

This review can help the authorities to provide appropriate and specific guidelines for the best conservation and maintenance strategies of buildings to protect existing heritage buildings. The findings suggest that complete documentation and reports such as recording the condition of the building before, during, and after the maintenance work should be done for future reference. This information is important as a reference for the maintenance and restoration process of the building in the future. A more in-depth and detailed study is required to address the problem of faulty forms of building facade in Malaysia and a more detailed conservation procedure may be suggested based on proper conservation principles and ethics.

REFERENCES


