



## The Traditional Courtyard Architectural Components of Eclectic Style Shophouses, George Town, Penang

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### ABSTRACT

Shophouses started to be built in Penang 200 years ago. This unique type of structure clearly shows the influences of Chinese, Malay, Indian and European styles; matured and merged together in response to the local environment. From the Chinese influence the courtyard was introduced. The courtyard is an essential typological element in a shophouse. In George Town, the traditional courtyard houses have characteristics that are suitable for the local region. However, most traditional shophouses faced alterations and deterioration and becomes a major concern in Penang. In addition, there has been a tendency proven since over thirty years ago to excessively replacing the traditional courtyard houses with multi-storey buildings. All of these have seriously affected the cultural continuity of the traditional shophouses form. This paper employed the qualitative research approach that obtained data from the observation and secondary sources to understand the design of the traditional courtyard architectural components of shophouses. The findings demonstrated the spatial organisation, ornamentation, courtyards are some of the major components in the characteristics of a shophouse. The architectural splendours and the preservation of the cultural heritage are vital for the appreciation by the wider public. More importantly, it is seriously needed care as George Town has recently been in 2008 added to the UNESCO World Heritage Cities list. A strong focus on promoting the traditional courtyard architecture ensures a strong appreciation of its existence.

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## 1. Introduction

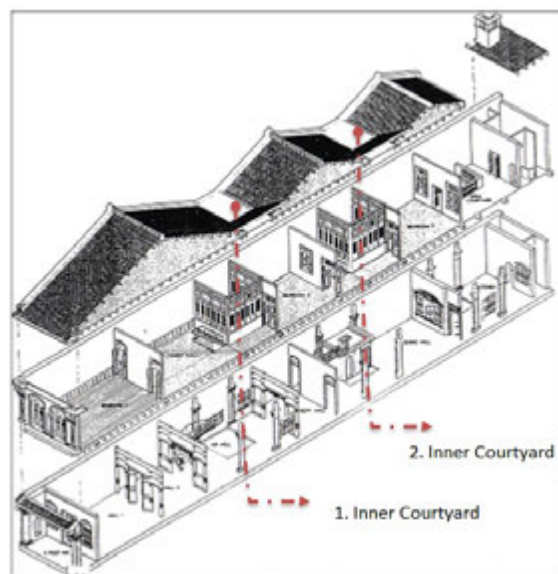
This paper examines the traditional courtyard architecture of eclectic style shophouses in George Town, Penang. The courtyard shophouse patterns could be found in many parts of Malaysia, but the most typical forms are those located in two Old Heritage Cities in Penang and Melaka, since over two hundred years ago. Furthermore, these cities were successfully added to the UNESCO's world heritage list in 2008 to acknowledge its rich cultural heritage that constitutes of

unique architectural and cultural townscape along the Straits of Malacca. This traditional courtyard shophouse architecture depicts an exciting heritage especially the courtyard styles and popularly known as the courtyard house. Nevertheless, the air well functions as an internal courtyard which is typical of residences all over China. In fact, it is rich in design and art components feature in its architecture that is still conserved until today. The Straits Eclectic Style came about during a prosperous era in the history of George Town in between the 1840s to 1910s. It was also during the period when George Town experienced an influx of Chinese immigrants.

## 2. Literature Review

### 2.1 The Traditional Courtyard Shophouses in George Town, Penang

The early shophouses were narrow in its width and higher in height. Usually, the width will be around six to seven meters followed by thirty meters in length by which sometimes can be up to sixty meters. The narrow façade which is usually less than ten meters in width is due to taxation rules imposed by the British (Ahmad, 1994). They imposed the tax by the number of windows per façade. Shophouses were built side by side with a common party wall. The walls were built out of bricks and were plastered. One of the typical interior features is the courtyard (air-well), also known as the ‘deep well’, located inside the center of shophouses, is an interior courtyard space rising from a sunken well or sink to the roof eaves. The traditional courtyard shophouses are long internal spaces with no openings at the side of the shophouses require the use of several courtyards (air-wells) (Figure 1). It enhances ventilation of the shophouses and lights up the rear section to ensure a good air flow (Zwain& Bahauddin, 2015).



**Figure 1:** Axonometric Views of a Typical Shophouse  
Source: George Town Historic Cities of the Straits of Malacca Book

The courtyard shophouse, a residential compound with buildings surrounding a courtyard on our (or sometimes three) sides, has been representative of housing patterns for over one thousand

years (Liu & Awotona, 1996). Furthermore, courtyards of shophouses were originally designed to be fully open to the sky in order to function effectively as natural ventilation assisting in the natural evaporation of groundwater from the breathable walls and floor. Tan (2015) stated that at one time people began to install sliding roofs with polycarbonate sheet coverings. The effect is that air circulation and natural ventilation are reduced by at least 60 per cent, which may cause further problems to the building. Such installation often damage timber or roof eave features. Concerns for security have seen the introduction of timber and metal grilles at a high level. Again, this may cause damage to the original fabric and reduce the natural ventilation and the general well-being of the traditional shapes in the George Town city, Penang.

### 3. Methodology

The research applies a qualitative method. Case studies are the main tool for this study, with observation, architectural documentation data, and visualizing materials used as qualitative data collection tools (Creswell, 2013). This study uses the following approaches:

- Traditional courtyard houses (Malay: rumah kedai) built in between 17th to early 20th century.
- Traditional courtyard shophouses built along the Core and Buffer George Town city, Penang.

### 4. The Traditional Courtyard Architectural Components

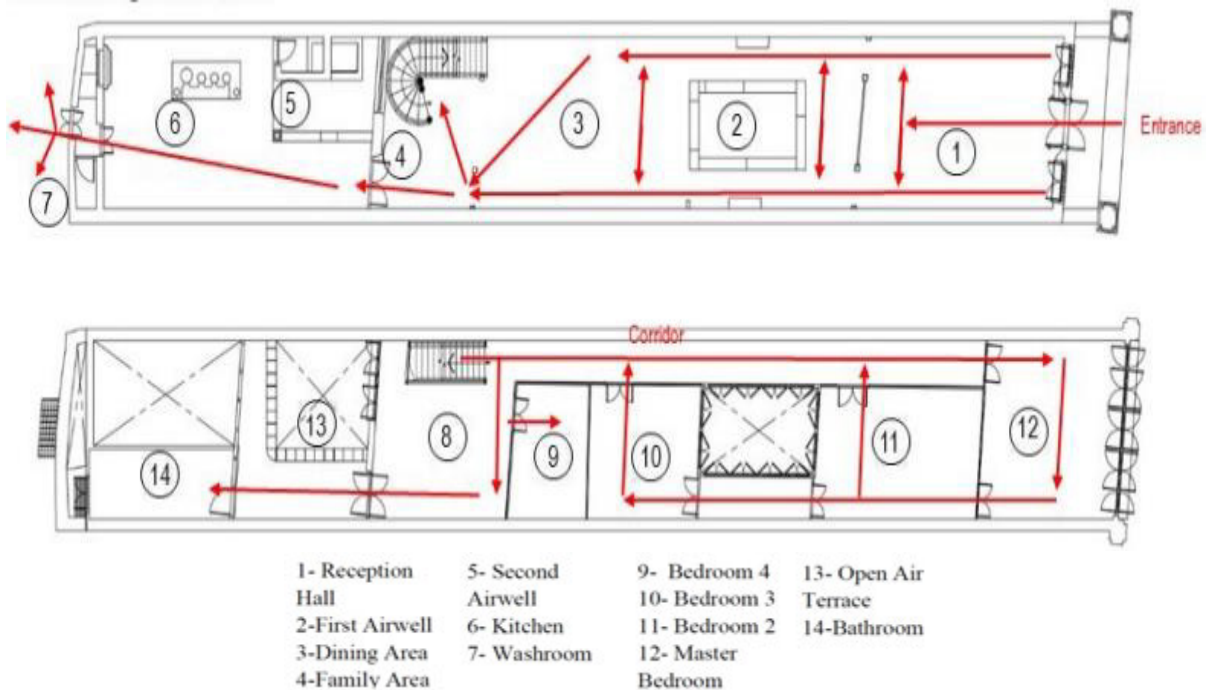
Traditional courtyard shophouses are analyzed within the city of George Town, Penang (north of Malaysia). A courtyard is a form of constructions that have a presence since the humans started to build their houses (Bridson, 2012). Moreover, the courtyard is an architectural component that suits the local culture and local society (Knapp, Ong & Wang 2010). Furthermore, the elements of interior space are the major entities that provide meaning to the overall space. Elements of the interior space define the space, thereby creating boundaries, and play an important part in defining the function of space. These elements provide identity and authenticity to the interior space (Tahir, Usman, Ani, Surat, Abdullah & Nor, 2005). The best examples of 17<sup>th</sup> to early 20<sup>th</sup> century architecture for courtyard shophouses in Malaysia can be seen in the cities of Penang and Maleka (Khoo, 2007). Interior elements in traditional courtyard shophouses in George Town has not been adequately researched. To fill this gap, this study aims to identify the common interior design components in traditional courtyard shophouses in Malaysia in contrast to those of traditional courtyard shophouses in the old George Town city.

### 5. Result of the Analysis

#### 5.1 Spatial Organisation

A traditional typical shophouse usually has the first hall (ruang tamu), second hall (tiah gelap),

one or two courtyards or air wells (chim chae), ancestral hall, bedrooms, bridal chamber and kitchen. There are four main zones in the traditional eclectic style shophouse and the public area which includes five-foot way (Figure 2). The second semi-private zone includes the first half of the room on the ground floor. The third zone is an area comprising of the kitchen, toilets, bathrooms, dining and storage. Then first floor is the fourth zone, which is a private area that covers all of the bedrooms (Bahauddin & Ramli, 2011).



**Figure 2:** Building's Circulation of Traditional Courtyard Shophouses

Fatland 2013 emphasized that cultural influences, whereby a traditional courtyard shophouse interior design welcoming space for visitors, which is not invited to go in beyond the screen is located along the sides of the room (Figure 3). This area will be furnished with a table, stools, heavy wooden chairs as well as side tables that are arranged symmetrically (Fatland, 2013).



**Figure 3:** A hall after The Entrance Backlit by Courtyard

One room could be found after passing through the front entry (Figure 4). This room is backlit

by the courtyard that radiates through the two doorways as well as a carved wooden wall screen which separates the living hall for public from a more privacy area behind meant for family members. A bright place furnished with a set of table and chairs are reserved for guests to drink tea while having a conversation is located next to a rectangular courtyard.



**Figure 4:** First Courtyard of Sun Yat Sen Museum.

Normally the front hall or parlor of the eclectic style shophouse is typically separated from the rest of the house by an ornately carved wooden screen. The timber divider which is directly facing the main door acts as a ‘spirit wall’ to prevent evil spirits from entering by obstructing straight paths. The filigree panels also allow the womenfolk to take a peek at visitors by which male guests rarely venture beyond this room.

## 5.2 Ornamentation

Ornamentation of the traditional courtyard shophouses, particularly on the street façade, is an important aspect of the buildings and for the architectural expression (Figure 5). However, this does not necessarily imply that a lack of ornamentation renders a building to a less significant architectural value. Simpler buildings rely on proportion, line and shape for their architectural appeal.



**Figure 5:** Façade of Baba Nyonya Shophouse

Source: <http://www.hbp.usm.my>, (1994) Accessed on 10/07/2017

According to Kwok (2007), animal figure in Chinese culture brings different meaning. The plaster rendering such as a bouquet of flowers, fruits, mythical animal figures and geometrical shapes were used to decorate the pilasters placed in between the window openings which are the space above the arched transom and below the window openings. Most of the fruits and mythical animal figures are influenced by the ancient Chinese architecture, while the insertion of flowers, leaves and geometrical shapes are inspired by European and Malay architecture. (Figure 6).



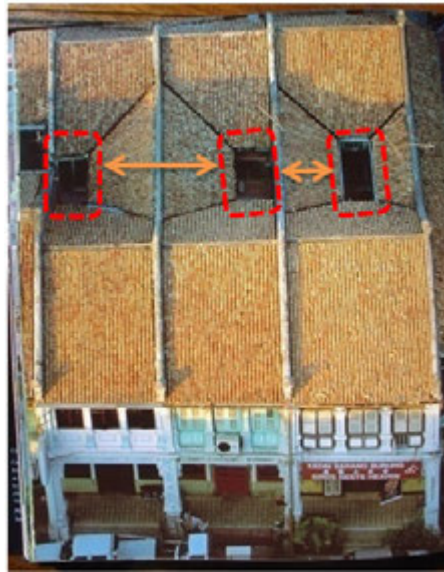
**Figure 6:** Parapet Wall Carvings

Apparently, in traditional courtyard shophouse façade, the parapet wall is clearly seen with the sparrow birds symbolize the happy atmosphere in the whole house added with many decorations in there.

## 6. Discussions

The traditional shophouse form in George Town, Penang is a dwelling with a courtyard. Although the courtyard shophouse was not the only house type in Malaysia, it was the typical form used by the majority of the Chinese immigrants from the southern province of China. These immigrants brought in Chinese architecture, combining the principles and tradition with local Malay architecture and Colonial influences to form Southern Chinese Architecture (Chun, Hassan& Noordin, 2005). Many Chinese architecture elements and details were expressed throughout the exterior and interior facades (Liu& Awotona, 1996). During the evolutionary process of vernacular dwellings, the form of the traditional courtyard shophouse was not selected by coincidence as an “ideal form” to be improved through the efforts of generations. Whereby, from the point of view of the shape of traditional vernacular dwellings, the form of the courtyard shophouse is more suitable than other vernacular dwelling types to adapt to the natural environment and to meet the needs of living in most areas of George Town, Penang. It may be assumed that physical forces such as climate and natural environmental conditions and socio-cultural forces are the main determinants that dictated the growth of the courtyard house form and the development of its style (Endut, 1994). Furthermore, courtyard (air well) is a common feature in Malaysian shophouses. It is an interior courtyard space rising from the sink to the roof eaves. The air wells located at the near

middle part of the shophouses (Figure 7). It allows daylight to illuminate the internal space of the long narrow shophouses.



**Figure7:** Traditional Courtyard of Shophouse (Air-well)  
Source: <http://sunyatsenpenang.com>, Accessed on 10/07/2017

The opening provides natural ventilation (Figure 8), not only increasing the energy efficiency but contributing to an enjoyable private outdoor space for the residents (Rasdi, 2000). Courtyard (air well) also functioned to discharge the rain water from the roof to the sunken well. As water represents wealth in the Chinese belief (elaborate on this).



**Figure 8:** Traditional Courtyard of Shophouse (Air-well)  
Source: <http://sunyatsenpenang.com>, Accessed on 10/07/2017

## 7. Conclusion

This paper has analysed factors responsible for the formation and development of traditional courtyard shophouses, the case studies have been presented in this paper are a converted

shophouses in the heritage area of George Town, Penang. One could find the original components and decorative elements of the shophouse in this area. The traditional courtyard buildings are a living example of the architectural heritage of George Town. No doubt, they are a superb example of Straits Settlements merchant's shophouse. The research findings of this study has brought the author towards a significant understanding of the specific of traditional courtyard architectural components and cultural influences that govern the design of the traditional courtyard shophouses, concerning with interior design the spatial organisation and ornamentation of eclectic traditional courtyard shophouses style, George Town, Penang. These shophouses are perfect example of architecture that fully utilized materials which are locally available such as lime, clay stone and timber. There are similarities observed between shophouses possessing architectural features such as air vents and courtyard (air well) that help to provide the building with natural cooling and its ventilation within the building itself. However, the massive urbanization has led towards the destruction of the built cultural heritage building as well as creating new challenges for the intangible cultural heritage. A traditional courtyard shophouse ought to revamp the presents of conventional structure in order to enhance the building performance toward greener design in parallel to support the sustainable development. As thoroughly discussed, the courtyard houses with major traditional features are here to stay. This is to ensure that the presence of shapes and its distinct architecture would be well preserved in the future. The only exception is that some changes are being (or are about to be) made to the old style of the courtyard houses, which is a reflection of the social and cultural changes. Apart from that, this could also be secured with the protection of World Heritage Site, UNESCO.

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