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Rozliani Mansor, Md Azree Othuman Mydin, Norazmawati Md Sani @ Abd Rahim, Ruhizal Roosli, Hasnanywati Hassan

### **Classification of Inheritance Shop Houses in George Town, Penang - UNESCO World Heritage Site**

*Shop house is an urban terrace house attribute of Asian towns from the 18<sup>th</sup> century which usually integrates a shop or business premise on the ground floor whilst the family dwells on the upper level, providing both ease and safety. The shop house might also be used entirely as dwelling quarters. Shop houses are constructed in rows and each row is arranged in blocks enclosed within a grid of main roads, back lanes and side roads. A shop house is usually two or three storeys high and is long and narrow, sharing a party wall with neighbours on either side. The Penang shop house is a ideal paradigm of a green building, using materials that are locally obtainable such as lime, clay stone and timber and suited to local geology and weather conditions. Shop houses also possessing architectural characteristics such as air vents and air-well that assist with natural ventilation and cooling. This paper will discuss categories and styles of the shop houses in historic city of George Town which can be divided into nine major groups.*

**Keywords:** *shop house, George Town, UNESCO, heritage, historic city*

#### **1. Introduction**

George Town was founded in 1786 by Francis Light an English naval officer and trader. From this humble beginning the town flourished as an original settlement and serves as a city centre. Francis Light laid down the town in typical colonial looks with rectangular blocks with 30 to 40 foot wide streets. Until now the grid was never expanded and the city grew along radial arms that reached out to grand spice and fruit plantations. In 1974 Francis Light listed the settlers by ethnic groups in the new towns such as Chinese Chulias (Southern Indian), native Malays (from Indonesia and Malay Peninsula), Siamese and Burmese, Arab, Burgesses and Europeans. The booming economy attracted a lot of people from around the world.

The trades usually involved textiles, rubber, tin and spices in which all of the trade was done in the shop houses.

All of the ethnicity above contributed to the architectural wonders of George Town landscape. They had been building the shop houses dating back 200 years with the merge of Chinese, Malay, Indian and European. These building were made in response to the local environment and weather. Chinese influence can be seen from the courtyard plan, rounded gable ends and fan shape vents including hard wearing plaster. The Europeans introduced French windows and decorative plasterwork. The hot tropical climate calls for the contractor to build shelter from the sun and rain. This decision led to the birth of five-foot walkways on the facade of the shop houses.

Even during the 80's most of small scale traders and manufacturers were running their business inside these pre war shops. The whopping 47% accounted for all small traders and manufacturers whom in fact carry on their activities till now.

This paper aims to consider categories and styles of the shop houses in historic city of George Town which can be divided into nine major groups. Each style has unique architectural and decorative features which is representative of a diverse period in George Town's history.

## **2. Shop Houses in the Historic City of George Town**

The shop houses and townhouses in historic city of George Town can be divided into at least seven or nine major groups but some of the designs were not built in George Town. However all the designs were categorized based on their facades and the period they were built in [1] and will be presented in the following section.

### **a. Dutch Style 17th – 18th century**

Dutch style is the most primitive category that can only be found in historical city of Melaka. Thus type of shop house was initially built by the Dutch in the 17<sup>th</sup> century; consists of one or two storey building came with a simple facade design. On the whole, it focuses on the limited opening on the upper floor with centralized door and two sides of window. The five foot way is not connected to the neighbouring buildings and it has undisclosed access porch. Structurally the walls are of Dutch brick and plastered with lime, while the roof structure is made from timber.

### **b. Southern China Style 18<sup>th</sup> – Early 19<sup>th</sup> century**

The Chinese population in Malaysia in general and predominantly in Melaka, is from China. In Melaka they are notably known as Peranakan Baba Nyonya. The Origin of this elite ethnic can be traced back to the Sultanate of Melaka when the

first sultan married a princess from China. The Malaysian Chinese population is descended from the immigrants from the southern provinces of China [2]. They consist of several different clans including the Hakkas, Foochows, Hainanese, Teochius and Cantonese. During the British period in the early 19th century, the Chinese, who came to Malay Peninsula via Penang, Malacca and Singapore, were employed in tin mines and rubber estates. Some of them were hired in trades, as craftsmen and skilled mechanics, while others worked in sundry shops as shopkeepers [3]. Due to the discovery of tin fields between 1850 and 1870 in some parts of Perak and Selangor states, plus the increasing demand for tin ore in tin-plate industry in Europe; a large number of them drastically, drifted to work in tin mines. The architectural tradition followed was a modified version of the "Chinese National". This is manifested in the symbolism of the ornaments that are used to convey luck, directions, seasons, the wind and constellations. The fundamental concept of design is courtyard, emphasis on the roof, exposure of structural element and colouring their building, floor finishes and others [4]. Normally the structure on this type of shop houses are plastered with lime and the roof structure are of timber. Figure 1 shows the façade view of shop house of Southern China style.



**Figure 1.** Façade view of shop house of Southern China style

### **c. Early Shop House**

The early form of two storeys shop houses is built to the street edge with recessed ground floor forming a pedestrian walkway, generally in detail and relatively low in scale. This type of design uses a masonry dividing wall and normally built with simple pitched roof. However, they are very particular in designing the facade with a pedestrian walkway and consist mostly of timber construction with continuous row of panelled or louvered shutters [5]. The facade is a means of filling the space between the two end walls. For the earlier masonry type, the upper

beam was generally placed directly above the window opening, leaving no room for frieze and exposed roof rafters forming an overhang and simple fascia board. Normally, the upper floor facade is bordered by plain masonry pilasters at each side and the ground floor has full width opening. Structurally, building of this style incorporates masonry walls with timber upper floor and tiled roof

#### **d. Early Transitional Style**

The two storey structures are built to the street edge and incorporate a five foot pedestrian walkway which is subsequently known as 'five footway' and is well entrenched in the style by the middle of the nineteenth century. Expressive gable ends to rows. Ornamentation is minimal with the upper consoles often enlarged and decorated with floral motifs, simple decoration to the spandrel. Green glazed ceramic vents) and plain pilasters [5]. The usual orders adopted are the Tuscan and Doric. Upper floor openings, with a row of continuous timber shutters are common. Cornices or horizontal mouldings along the beam make the structure appear heavy. Structurally, buildings of this style incorporate the use of masonry dividing walls with timber upper floor, tiled roof and timber beam. Figure 2 illustrates the facade of shop house of early transitional style

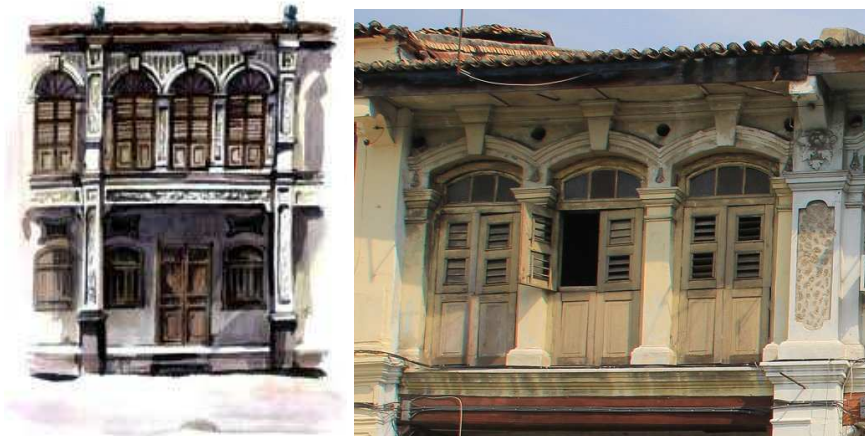


**Figure 2.** Facade of shop house of early transitional style

#### **e. Early Straits Eclectic Style**

The transitional styles of buildings are relatively manifested in restrained use of ornaments on its façade. Doors and windows remain predominantly timber framed and shuttered although the use of glass in small plates on the shutters later became common. Transoms are flat arched or semicircular unfilled with glass. Vents are employed with an elegance of economy, architectural composition as squares or diamond between windows [6]. Ground floor masonry walls have sym-

metrical double doors, a pair of window and bat shape vents above. The style incorporates many of the features of the 'grand' classical style, reinterpreted and adopted to suit the vernacular shop houses that may include pediments, pilasters, keystones and arches. From the 1910's, the use of reinforced concrete allowed wide roof overhangs and more elaborate cantilevered concrete decoration (consoles). This style exhibits almost exclusively a bipartite elevation order, i.e. elevation with two windows. Structurally, buildings of this style incorporate extensive use of masonry with the introduction of reinforced concrete lintels and beams, timber upper floor and tiled roofs [6]. Figure 3 demonstrates the facade of shop houses of Early Straits Eclectic Style



**Figure 3.** Facade of shop houses of Early Straits Eclectic Style

#### **f. Late Straits Eclectic Style**

This is the most spectacular style particularly in the use of ornamentation. The tripartite arrangement of three windows on the façade reduces the actual wall space to the minimum and provides maximum ventilation. In later examples, the wall surface is replaced by columns or pilasters framing the windows. The constrained indigenous façade designs borrowed freely from the various ethnic traditions. Chinese panel frescoes are often combined with Malay timber fretworks that fringe the eave of the roof. Brightly coloured ceramic tiles and plaster delicately moulded into bouquets, festoons, plaques and other elaborate ornamentation bear testimony to the artistry of the shop house builders [6]. The development of reinforced concrete in the 1910's enabled large spans to be achieved and more elaborate cantilevered details to be incorporated into facades. Structurally, buildings of this style incorporate extensive use of masonry with first floor timber fenestration and tiled roof. Figure 4 demonstrates the facade of shop house of Late Straits Eclectic style.



**Figure 4.** Facade of shop house of Late Straits Eclectic style.

#### **g. Neo-Classical Style**

The Last phase of European Classicism of the late 18th and early 19th century monumentality characterised by a sparing use of ornaments and strict use of the Orders of Architecture. Studiously proportioned which sometimes incorporate portico, colonnade and cupola(s) in the design [7]. Evidently, the style which was carried through into the early 20th century was influenced by Anglo-Indian Architecture through colonial British with East Indian Company which brought influences practical to their tropical experience, which are typified by high ceilings, large porches and painted in pastel or white finishing on exterior and interior walls that can be seen in the colonial government buildings and bungalows for European masters in all major cities such as buildings along Weld Quay. Most non-tropical forms used is the Palladian system of neo-Greek column, pediments and fenestration, neo-Roman arches and domes, and Renaissance parapets, turrets, cupolas, quoins, empanadas, surrounds, staircases and balconies.

#### **h. Art-Deco Style**

Art Deco is a decorative style widely used between the 1930's and 1950's. The style is characterised by the use of straight lines (typically three parallel) arranged either vertically or horizontally in conjunction with other geometric elements, creating a strong vertical or horizontal emphasis to the structure. A granulated render adapted from and regionally known as "Shanghai Plaster" was introduced at this time and was commonly utilised [7]. The exuberant classical decoration of earlier style became much more restrained and in many cases was stripped completely. Windows are arranged in groups rather than the typical three bays commonly observed in the earlier shop houses style (casement shutters). Highlighting the date

of construction on the facade of the building as well as the use of metal frame windows is typical of this period of architecture. Structurally, buildings of this style are or reinforced concrete masonry rendered or Shanghai plastered. Development or reinforced concrete resulted in cantilevered sunshades and high pediment or parapet wall. Figure 5 shows the facade of shop house of Art Deco style.



**Figure 5.** Facade of shop house of Art Deco style.

### **i. Early Modern Style**

Following the development in western art and architectures from the end of the 19th century to its pinnacles in the 1920's and 1930's, this Early Modern style actually embraces a wide variety of movements, theories, and attitudes whose modernity resides in a common tendency to repudiate past architecture. Walter Gropius, Le Corbusier, Mies Van de Rohe were the important figures in the general trend towards a radically ornamented, simplified approach to architectural style. Built with reason, formed by character and the aesthetic quality of which came from the simplicity and the abstract relationship of solid surfaces and large, clean cut openings rather than from applied ornament or decoration. The trend soon caught up in the country after the war [7]. Although in moving design away from the quaint and craftsmanship, local influences were not disregarded but were

adapted to form a unique modern style. Structurally, the buildings of this style use reinforced concrete. Figure 6 demonstrates the facade of shop house of Early Modern style.



**Figure 6.** Facade of shop house of Early Modern style.

### **3. Conclusion**

This paper has presented the categories and styles of the shop houses in historic city of George Town which can be divided into nine major groups. It can be seen from the discussions that each style has distinctive architectural and decorative features which is representative of a different period in George Town's history. These shop houses are perfect example of a green building, using materials that are locally available such as lime, clay stone and timber and suited to local geology and weather conditions. A shop house also possessing architectural features such as air vents and airwell that help with natural ventilation and cooling in a building.



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### *Addresses:*

- Building Technology Master Student, Rozliani Mansor, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia, [lyanie@yahoo.com](mailto:lyanie@yahoo.com)
- Senior Lecturer, Sr Dr. Md Azree Othuman Mydin, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia, [azree@usm.my](mailto:azree@usm.my).
- Senior Lecturer, Dr. Norazmawati Md Sani @ Abdul Rahim, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia, [norazmawati@usm.my](mailto:norazmawati@usm.my)
- Senior Lecturer, Ruhizal Roosli, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia, [ruhizal@usm.my](mailto:ruhizal@usm.my)
- Senior Lecturer, Sr Dr. Hasnanywati Hassan, School of Housing, Building and Planning, Universiti Sains Malaysia, 11800, Penang, Malaysia, [hasnany@usm.my](mailto:hasnany@usm.my)