A Comparative Study on Chinese Architecture in Peninsular Malaysia and Mainland China

Somayeh Armani[1] & Ezrin Arbi[2]
[12]*Department of Architecture, Faculty of Built Environment, University of Malaya, Kuala Lumpur, Malaysia*

[1]*sima.armani@gmail.com,* [2]*ezrin_fab@um.edu.my*

Chinese architecture is one of the most prevailing architectural styles in Peninsular Malaysia, which is inspired from architectural specimens in Mainland China. It can be stated that the Chinese structures in the Peninsula are variations of Chinese architecture in Mainland China since the Chinese builders in this area have faced the long journey of migration, assimilation and integration with new culture and environment. This paper intends to focus on this architecture, its various typology and characteristics, and comprehend it in deeper levels by providing comparison between this architectural style in Peninsular Malaysia and Mainland China. To achieve this goal, this article applied Historical-Comparative Research method, during which a variety of evidence concerning classical Chinese architecture in Mainland China as well as Peninsular Malaysia was compared and interpreted. Findings in this article show that Chinese architecture in Peninsular Malaysia mainly follows Southern China's architectural style, whilst Northern China's architectural influence is perceivable in the later stage of its development.

Keywords: *classical Northern China's architecture, Southern China's architecture, Chinese architecture in Peninsular Malaysia*

1. INTRODUCTION

Due to the special geographical location of Peninsular Malaysia, this region has always been the centre point where various cultures met (De Witt, 2010). Located between two great civilizations of India and China, the Peninsula has attracted numerous merchants from east and west, who had significant role in enrichment and development of this region's architectural scenery (Moore, 1986). Indian, Middle Eastern, European, and Chinese architectural styles are among the foreign sources, which interacted with indigenous Southeast Asian architecture and resulted in the creation of fascinating architecture unique to Peninsular Malaysia (Chen, 1998; Ryan, 1971; Vlatseas, 1990; Yeang; 1992). Chinese architecture is the second oldest architectural style introduced to the Peninsula after Indian architecture. However, unlike Indian architecture, Chinese architectural characteristics did not fundamentally influence indigenous Southeast Asian architecture (Munoz, 2006). Yet many Chinese buildings can be seen around the Peninsula since the Chinese migrants in the region have adhered to their architectural traditions from Mainland China and built their buildings completely inspired by classical Chinese architecture (Chen, 1998; Yeang, 1992).

The initial appearance of Chinese architectural style in Peninsular Malaysia goes back to the time when numerous individual Chinese merchants travelled to Melaka and settled in this region during the 16th and 17th centuries. However, the erection of Chinese buildings in the Peninsula significantly increased in the course of abundant Chinese migrations as labor forces from the 19th century onwards (Andaya & Andaya, 2001; Ryan, 1971). It is important to note that Chinese architectural style had its primary influence on the region's architectural scenery during the Melaka kingdom- in the 15th century, since the political and consequently cultural interactions between Melaka Kingdom and Imperial court of China were potent and profound during that time (Munoz, 2006; Tan et al., 2005). Although there is no architectural specimen that remained from that period, it could be stated that the initial Chinese architectural influences appeared in Melakan imperial buildings such as palaces or imperial mosques (Zakaria, 1994).

Chinese architecture in Peninsular Malaysia has intrigued a few scholars' attention, such as Vlatseas, Chen, and Yeang who described it very briefly in *"A history of Malaysian architecture",* (1990), *"The Encyclopedia of Malaysia: Architecture",* (1998), and *"The Architecture of Malaysia",* (1992) respectively. David Kohl in "*Chinese Architecture in the Straits Settlements and Western Malaya: Temples, Kongsis, and Houses",* (1984) paid special attention to this

subject and provided more detailed description. This paper summarized these narrations and attempted to elaborate the subject by making a research on classical Chinese architecture, as well as by providing comparisons between Chinese architecture in Mainland China and the Peninsula. Through these comparisons Chinese architectural style in Peninsular Malaysia will be perceived in deeper and more accurate levels. To do so, this article followed Historical-Comparative Research method, which consists of several stages that are described in the methodology section. Preceding the study of Chinese architecture in Peninsula, study on historical contacts between China and this region is essential since the understanding of the historical nature of a phenomenon is often as important as understanding the phenomenon itself (Salkind & Rainwater, 2009). As a result, a brief historical description concerning interactions between China and Southeast Asia is provided.

2. HISTORICAL INTERACTIONS BETWEEN CHINA AND SOUTHEAST ASIA

Although the initial appearance of Chinese in Southeast Asia goes back to the Three Kingdoms era (the 3rd century), the historical evidence shows that contacts between the two regions were extremely limited since Southeast Asia, which was referred generally as Nan Yang (Southern Ocean) among Chinese, did not attract much attention from them (Andaya & Andaya, 2001; Kohl, 1984; Munoz, 2006; Ryan, 1971). The earliest interactions between the two regions mainly happened by individual Chinese merchants and Buddhist pilgrims (Wang, 1992). The period between the 5th and the 8th centuries was a remarkable time for Chinese Buddhist pilgrims' voyages to Southeast Asia. The Chinese Buddhist missionaries and monks, who intended to reach the motherland of Buddha, India, were preparing themselves with spiritual teachings initially in Southeast Asia (Wang, 1992). However, these Chinese did not make any permanent settlement in the region and these contacts made no cultural influence on Southeast Asian people (Munoz, 2006; Tan et al., 2005).

Simultaneously with the foundation of Melaka Kingdom in the l5th century, Emperor Yongle of Ming Dynasty decided to develop China's maritime trade activities and sent his envoys to Southeast Asia, which resulted in more economic contacts with Southeast Asian ports (Moore, 1986). In order to initiate a strong economic and political connection with Melaka Kingdom, Admiral Chen Ho (a Muslim Chinese) visited Melaka several times between 1403-1433, and Parameswara visited China three times between 1411-1419 (Hoyt, 1993). In 1409, the imperial court of China and Melaka kingdom signed an alliance, whereby China protected Melaka against the Siamese and Majapahit invasions (Lim, 2001). The relationship between China and Melaka was strengthened with the marriage of Sultan Mansur Shah and a Chinese prince, Hang Liu -Hang Li Po- in 1460s (Levathes, 1994). Thus, it can be stated that the first assimilation between two cultures happened during this time as the majority of the historians have affirmed that prior to the 15th century there were no Chinese settlements in large numbers in the Peninsula. As a result Melaka kingdom era is usually known as the starting point of Chinese cultural appearance in Peninsula Malaysia (Tan et al., 2005).

After Portuguese invasion, the royal court of China resumed trade activities with Melaka since the Portuguese re-established the port's former trading position in the region very soon (Kohl, 1984). In 1557, Portuguese rented Macao (a port in southern coasts of China) from China and in return protected China's sea routs from pirates (Crossman, 1991). By having two major ports under their governance, Portuguese were able to expand trading activities between Melaka and Southern Coasts of China (Crossman, 1991). After the Dutch conquest and in spite of wreaking the city, they managed to reconstruct Melaka with the help of Chinese builders and follow former occupier's trading policies (Moore, 1986).

The trade contacts between China and Melaka increased significantly since Western colonization of the city and attracted numerous Chinese individual merchants from southern China, who had to stay in Melaka for at least five months waiting for seasonal monsoon winds to change and take them back to their homeland (Vlatseas, 1990). These Chinese had to set up second home in Melaka, where descendants had strong cultural influence on Melaka between the 18th and the mid 19th centuries and were considered the pioneers of Chinese structures in the area (Khoo, 1996; Tan et al., 2005). Due to political riots, economical distresses, and natural catastrophes in China in the mid-19th century, numerous Chinese labours migrated to the Peninsula in order to obtain a brighter future (Pan, 2006). It was after the British occupation that the Chinese communities started to spread into the Peninsular Malaysia from Melaka (Vlatseas, 1990). The historical timeline of interactions between China and Peninsular Malaysia is presented in Figure 1.

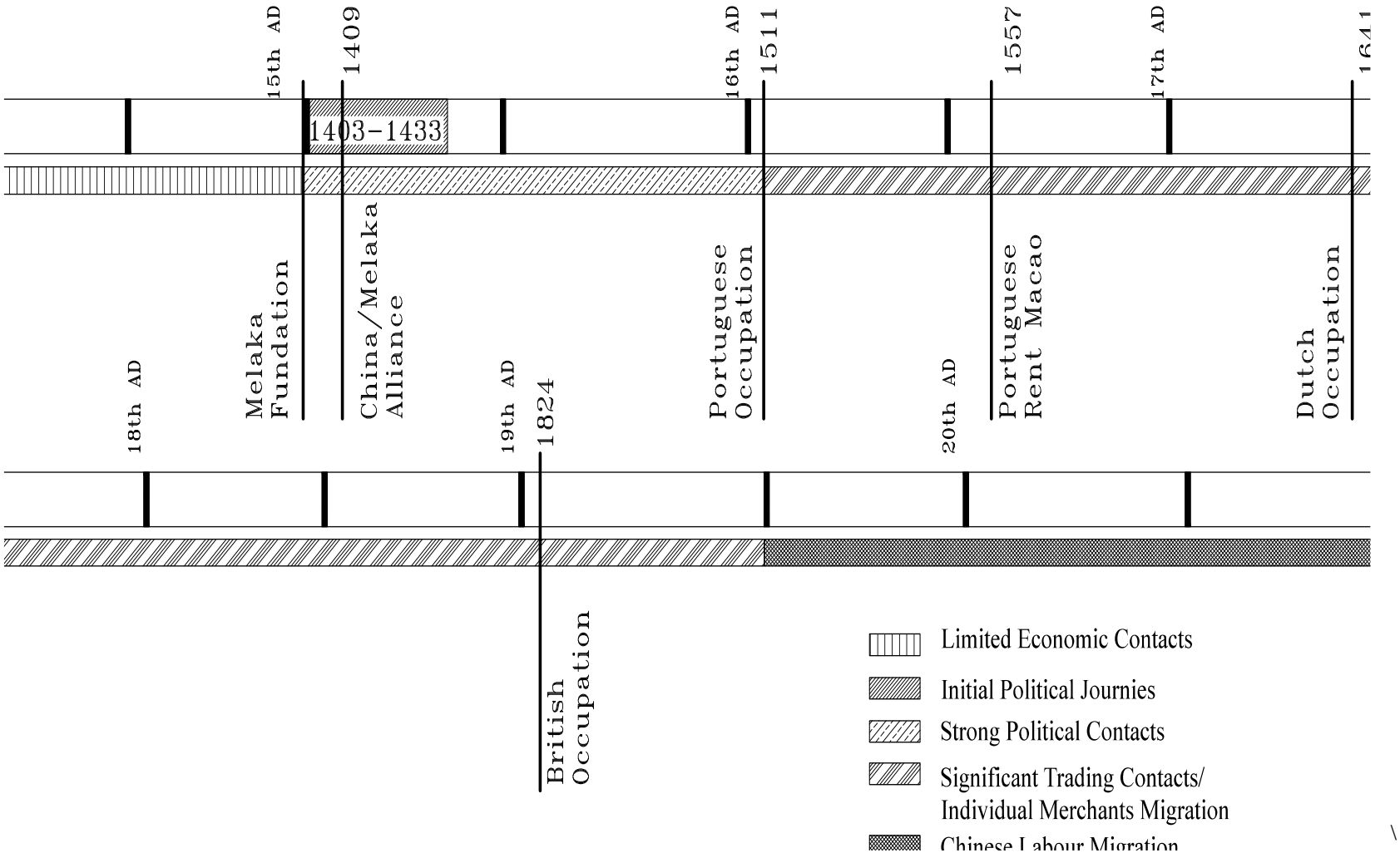

Figure 1: Chronological time-line/ interaction between China and Southeast Asia
(Source: Derived from Andaya & Andaya, 2001; Harrison, 1967; Munoz, 2006; Pan, 2006; Ryan, 1971; Vlatseas, 1990)

2.1 TRADITIONAL CHINESE ARCHITECTURE IN MAINLAND CHINA

The special political and social condition of China developed a complete and independent architectural style with a unique form, characteristics, and constructional techniques (Ru & Peng, 1998). Due to a unified governmental system under the strong emperors' supervisions, China's architecture maintained its fundamental characteristics in form, construction, and ornamentation over the centuries until the intrusion of Western culture in the 19th century (Fazio et al., 2008; Liu, 1989). To create an image able to show the splendor of classical China's architecture and make comparative procedure possible, this paper presents concise discussions on classical China's architecture from different perspectives. Northern Imperial architecture, Buddhist pagodas, and the architecture of southern lands of China as the architecture of commoners gain the focus of this literature review section.

2.2 NORTHERN IMPERIAL ARCHITECTURE: PALACES AND TEMPLES

The emperor of feudal China was known as the "Son of Heaven", who had the critical role in the development of classical Chinese architecture since under his supervision, significant structures such as imperial palaces and temples were designed and built in the country (Cai & Lu, 2008). Over the centuries the Chinese imperial complexes were erected with the same fundamental characteristic such as the application of wall enclosure on group of buildings and courtyards, north-south orientation, emphasize on central main axis, sequencing to create dominance, emphasize on vertical axis, orthogonal and symmetrical plans, and the employment of symbolic meanings through ornamentation (Fazio et al., 2008; Juliano, 1981; Liu, 1989). The imperial wooden halls in these complexes also share same architectural attributes in form, construction and appearance, while the inner and outer ornamentations determine the primary function (Fisher, 1993). These imperial halls consist of three main features: podium, body of building, and roof (Liang & Fairbank, 1984; Liu, 1989). The main body of the hall comprises several slender circular columns and thin walls in between and stands on a heavy and profusely ornate podium with carved balustrade and columns at intervals, whilst the heavy double or single, gabled or hipped roof is linked to the body by magnificent dougong (Liang & Fairbank, 1984; Cai & Lu, 2008). All the mentioned features, as well as the roof's ridge, copings, and extended eaves are coloured or sculptured in plant, trees, natural phenomenon, imperial or holy animals, and geometrical motifs (Cai & Lu, 2008; Lip, 1986; Lip, 1995; Zhang et al., 1986). Glazed ceramic or clay tiles cover the roof, whilst the coffered ceiling, which is magnificently colored or glittered, is covering the interior structure of the roof (Juliano, 1981). Moreover, the intervals between the tiers of the roof may demonstrate color-paintings or clerestory windows (Liu, 1989). Figure 2 illustrates an example of Chinese imperial structure.

Figure 2: Imperial Palace of Forbidden City, Ming Dynasty
(Source: Liu, 1989: 249)

2.3 BUDDHIST ARCHITECTURE: PAGODAS

Although Buddhism found its way from India to China as early as the 1st Century AD (Lou, 2002) it took around five hundred years until the authorities and the commoners fully accepted this foreign religion (Wei, 2000). It was from the Northern and Southern dynasties (5th -6th centuries) that numerous Buddhist structures were built all around China, initially as imitations of Buddhist structures in India but later evolved into specimens, which demonstrate Chinese architectural characteristics combined with Buddhist ideas from the motherland (Cai & Lu, 2008; Fisher, 1993). One of the monumental structures specific to Chinese Buddhist architecture is the pagoda. Pagoda is a fascinating example, in which the Indian-Buddhist monumental element of stupa integrated with Chinese multi-storied watchtowers in military construction (Chinese Academy of Architecture, 1982). The vertical, rectilinear shape and the use of overhanging tiled eaves can be ascribed to earlier Chinese watchtowers (Fisher, 1993), while its purpose to house relics and sacred writings are originated from Indian stupa. As a religious structure, the pagoda became one- or multi-storey architectural monument with layered roofs and a vertical marker in the landscape (Fazio et al., 2008). The Chinese built pagodas in various shapes, styles, and materials (such as wood, bronze, stone and brick- the latter materials being used in imitation of wooden pagodas) (Fisher, 1993). Between these different styles, the tower-style and Close-eave pagodas have a special place in Buddhist structure in China.

Tower-styled Pagoda: The external appearance of the pagoda in this style is characterized by windows, round pillars, square pillars, dou gong brackets, and eaves, formed by using wood moulds (Wei, 2000). In this type as the structure rises, each story diminishes slightly in both height and width (Liang & Fairbank, 1984). In most cases, the pagoda's receding stories present an image of clarity and even rhythm, in distinct contrast to the complex bracketing and coloured tiles of temple structures (Fisher, 1993). Figure 3 provides an example of tower-styled pagoda.

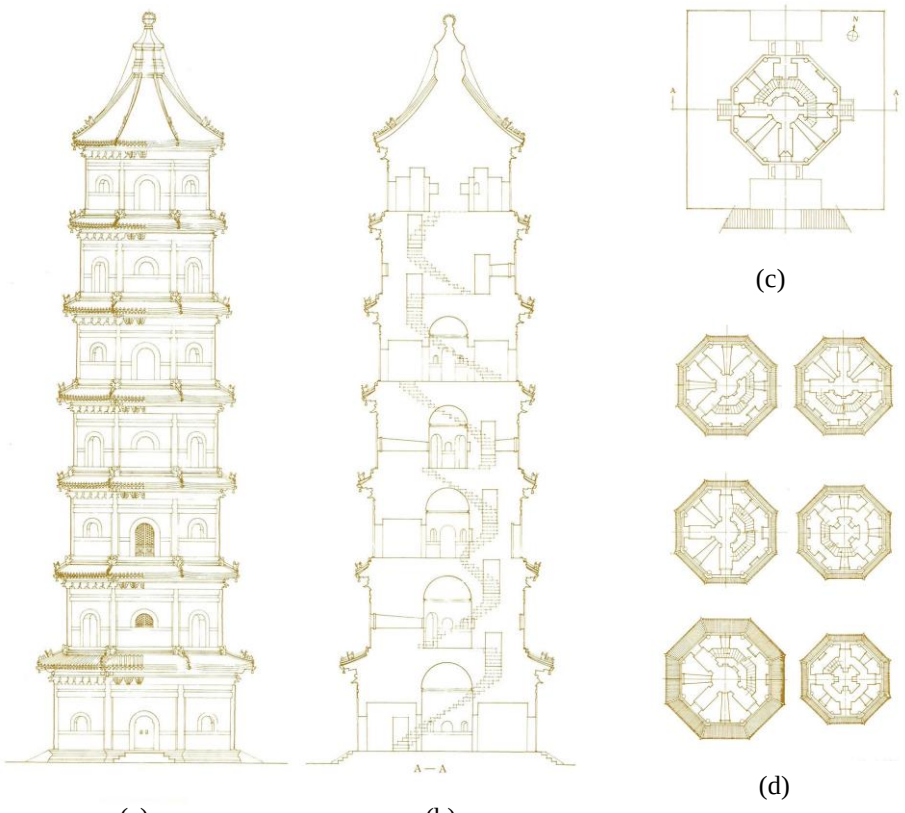

Figure 3: Yufeng Pagoda (tower-style pagoda), Beijing
a) Elevation b) Cross Section c) Ground Floor Plan d) Floor Plans
(Source: Zhang et al., 1986: 201)

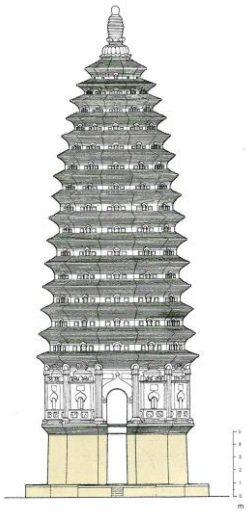

Figure 4: Close-eaves Pagoda: The Songyue Pagoda, Northern Wei Dynasty
(Source: Wei, 2000: 154)

Figure 5: Southern China's architecture- The architecture of commoners' (The three-sectioned gable roof, whitewash walls with no ornamentations, and grey tiles as roof's material are of distinctive characteristics)
(Source: Knapp, 2004: 177)

Close-eaves Pagoda: This type (see Figure 4) is characterized by a high principal story, normally without a base and with many courses of eaves or cornices, which are usually odd in number, seldom fewer than five and rarely exceeding thirteen (Liang & Fairbank, 1984). The first storey of the pagoda usually provides surface for decoration with Buddhist statues, lotus flowers, and geometric patterns; doors, windows and pillars all providing additional forms of decoration, whilst above the second storey, there are generally no doors or windows (Wei, 2000). The pagoda's multiple levels, accessible by interior stairs, followed the early custom of surmounting the square base with a series of narrow storeys and in some cases are divided by shallow eaves that accentuated the gently curving tower (Fisher, 1993).

2.4 SOUTHERN ARCHITECTURE: ARCHITECTURE OF COMMONERS

Although Southern Chinese architecture still follows the primary attributes of classical Chinese architecture such as symmetry, axial planning, hierarchy, and enclosure, due to the cultural and environmental disparities between North and South, this style is slightly different from what can be seen in Northern China, thus it can be said that Southern Chinese is a variation of Northern Chinese architecture (Khoo, 1996; Knapp, 2004). The vernacular courtyard houses in Southern China formed as a response to common people's daily lives, religious principles, legendary traditional folks, as well as environmental conditions (Kohl, 1984). The construction of ordinary people's buildings was based on the premises of aesthetics, as well one's social status, which would then determine the types of ornamentation, colours, quality of materials, and themes that a person was allowed to use (Cai & Lu, 2008). These buildings appear as simple and modest structures in size, with elevated gable walls and gable roofs that sometimes divided into three sections by raised copings and are covered by grey clay tiles (Kohl, 1984). Figure 5 represents an example of commoners' buildings in Southern China.

3. METHODOLOGY

In order to study Chinese architectural style in Peninsular Malaysia and its architectural typology, this paper applied Historical-Comparative Research method, in which several steps conducted concerning evidence compilation, organization, evaluation and analysis, comparison, interpretation and narration conducted (Groat & Wang, 2002; Neuman, 2003). In this study, collected evidence was identified and organized into primary and secondary data, which were compiled from different sources. The evidence regarding the Chinese architecture in Peninsular Malaysia that was compiled through fieldworks was considered as the primary data and was organized based on different typology such as temples, pagodas, and courtyard houses. While secondary evidence, which was presented as literature review included the historical interaction between China and Peninsular Malaysia, the Chinese architecture in the Peninsula was gathered through bibliographic work, as well as classical Chinese architectural style in Mainland China. The latter contains studies about Chinese architectural typology, Buddhist structures in China, and finally Southern China's architecture as the architecture of commoners. Since the historical study reveals this fact that the majority of Chinese migrants in the Peninsula came from Southern coasts of China, it is vital to concentrate on Southern China's architecture, specially the commoners' architecture. The study on Northern Chinese as well as Buddhist architecture is also important since the study on Chinese architecture in Peninsular Malaysia demonstrate influences from mentioned styles. This will provide better comprehension on classical China's architecture and present stronger comparison between Chinese architecture in Mainland China and Peninsular Malaysia. In order to organize secondary data, each one of the mentioned categories focuses on certain typology. The main concentration of Northern Imperial architecture, Buddhist architecture, and Southern architecture sections are respectively on Palaces and temples, pagodas, and courtyard houses.

This paper analyzed, evaluated and interpreted findings from primary and secondary sources through morphological and ornamental considerations and provided the best feasible comparison between relevant data in order to yield a concise description concerning Chinese architectural style in Peninsular Malaysia. Qualitative method was applied for data obtainment to collect the most relevant evidence from various sources such as historical, observational, and visual texts, cultural texts and productions, and also case study, artifacts, interviews, and personal experience (Denzin & Lincoln, 2005). Figure 6 illustrates the diagram of research structure.

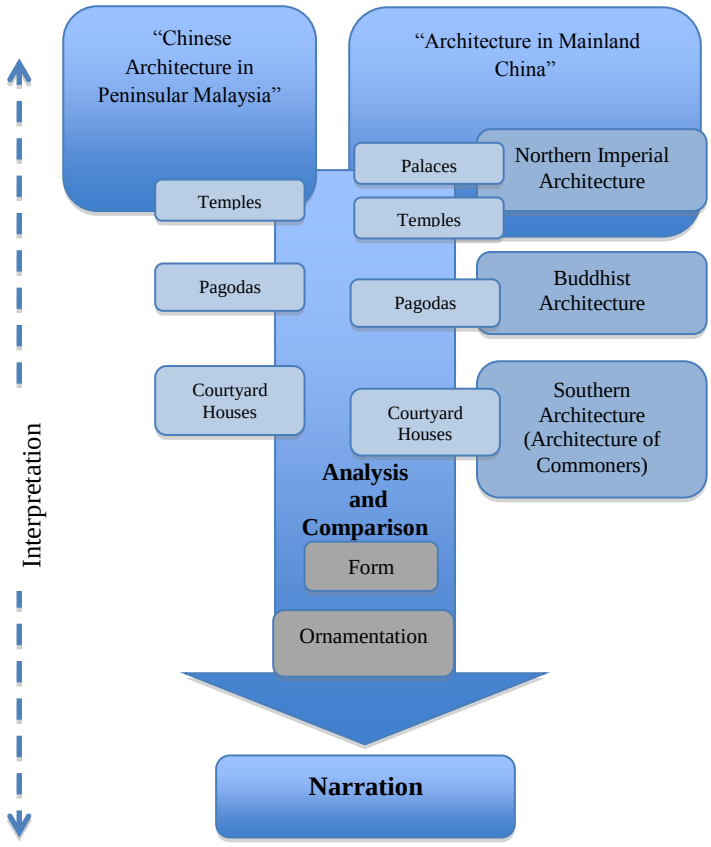

Figure 6: Diagram of research structure

4. FINDINGS ANALYSIS, EVALUATION AND INTERPRETATION

Findings from secondary data indicates that the initial cultural integration of Mainland China and the Peninsular Malaysia happened during the Melaka Kingdom era, which resulted in the appearance of earliest Chinese architecture in Melaka during this period. No architectural evidence has remained from that epoch to enable this study to explore the earliest Chinese structures in Melaka except for Bukit China that does not tell us a lot about this style's characteristics. As mentioned before, Chinese in Melaka whether wealthy merchants or coolies came mainly from the southern provinces of Kwangtung, Fukien, Chekiang, and Kiangsi, who remained faithful to their homeland culture and beliefs and constructed buildings inspired by their traditional style from Southern China's architecture (Chen, 1998; Kohl, 1984; Pan, 2006; Tan et.al, 2005; Vlatseas, 1990; Yeang, 1992). However, it is important to note that the later Chinese practices in the area evidently demonstrate the strong influence of Northern China's architectural style such as the application of heavy double-hipped roof, dougong, podium, and the excessive use of color-paintings on the surfaces. It is postulated that as the Chinese community in the area became well educated and prosperous, they tended to look to the Northern Chinese inspiration.

Chinese structures in the Peninsula whether religious, social or residential buildings adhere to certain ideas in terms of function, unity, construction, aesthetic, and symbolism (Chen, 1998; Kohl, 1984; Vlatseas, 1990). Following the classical China's architectural style, the basic concepts of Chinese architecture in Peninsular Malaysia are bilateral symmetry, orthogonality, axial arrangement, and application of courtyard, flamboyant roof, visible structural components, and colour (Kohl, 1984). The other main architectural characteristics or elements in these structures, which mainly are inspired from Southern China's style are modest size, gable or three-section gable roof, overlapping roofs, curved roof ridge, elevated gable walls, ornamented wall friezes, high ceiling, full high windows, deep overhangs, curved and ornate gable ends, air-wells, glazed ornamental tiles, stucco decorations, and Chien Nien and Shiwan techniques ornamentations (Chen, 1998; Kohl, 1984; Lim, 2001). The unique hybrid Chinese architecture in Peninsular Malaysia expresses itself as different typology, among which this paper concentrates on temples, pagodas, and courtyard houses.

4.1 TEMPLES

Form: The earliest Chinese houses of worship in Peninsular Malaysia were modest shrines built from timber and thatch, but as the Chinese influence and wealth fortified, their temples appeared as highly decorated halls constructed often from imported materials from China (Chen, 1998). The study on temples in the Peninsula shows that these temples, similar to the temples in Mainland China, are designed around some basic concepts. They are walled group of structures, orient on north-south axis, face toward south on a symmetrical and orthogonal plan, emphasis on the vertical axis, and apply sequencing to establish dominance (Chen, 1998; Kohl, 1984; Vlatseas, 1990; Yeang, 1992).

There are some small temples in the Peninsula that hold only one hall, while the more elaborate temples comprise various halls and courtyards. The later usually contain a central main building, where the altar is located inside and is accessible through a semi-enclosed prayer pavilion and two side buildings that sometimes hold the lesser deities. All these buildings face an open-air courtyard, which is separated from the street with highly decorated doorways and provides light and ventilation for inner spaces (Chen, 1998; Kohl, 1984).

The comparison between temples in China and the Peninsula indicates that following the classical China's architecture, temples in Peninsular Malaysia consist of three major components of raised base, highly decorated body, and heavy roof. However, these temples represent the mentioned features inspired by Southern China's style, as well as the architecture of commoners in China instead of its imperial architecture. In contrast to multi-level profusely decorated podium in Northern China's architecture (see Figure 7) they demonstrate extremely simple low-rise base or sometimes no base at all. They also represent highly modest halls in size and hold gable roof or often gable roof in three (3) sections similar to the architecture of commoners instead of imperial hipped or gable-hipped roof. The main ridge in temples in the Peninsula can be found in both curve and strait designs. Through comparison between Figure 8 and 9, the strong influence of architecture of commoners on temples in Peninsular Malaysia is clearly discernible.

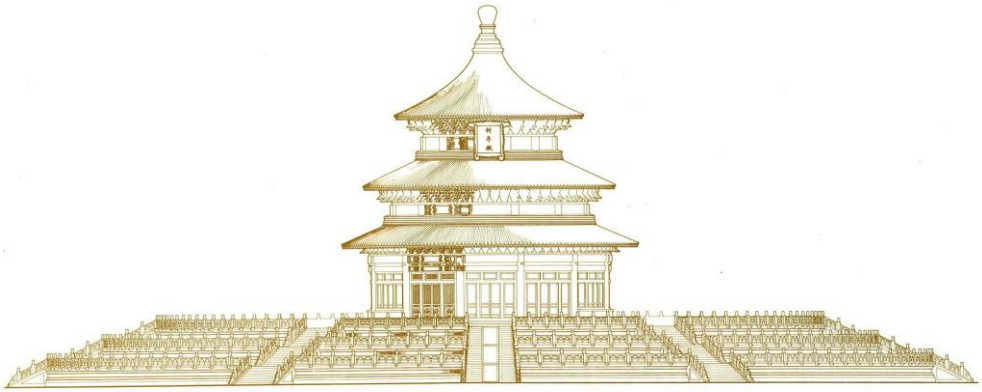

Figure 7: An example of Imperial Chinese temples in Northern China, Qinian Temple, Beijing
(Source: Zhang et al., 1986: 147)

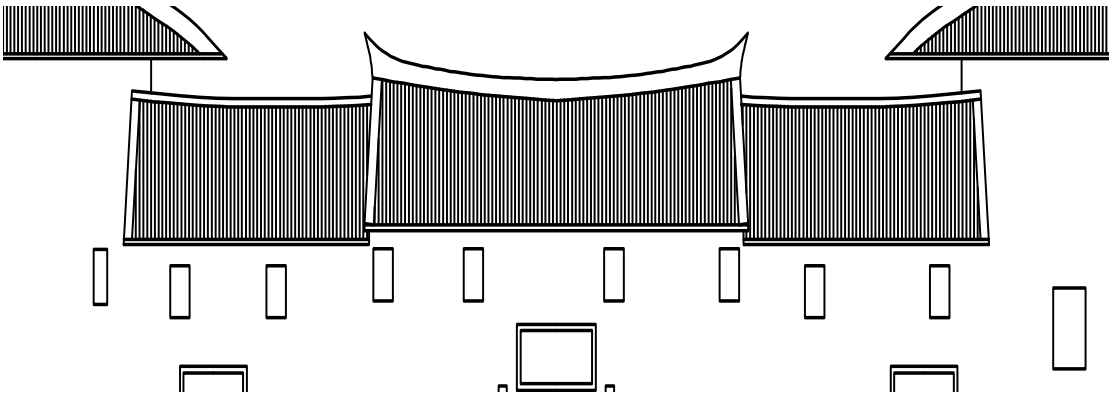

Figure 8: Southern Chinese Architecture- The architecture of commoners
(Source: Drawn by author from Knapp, 2004: 177)

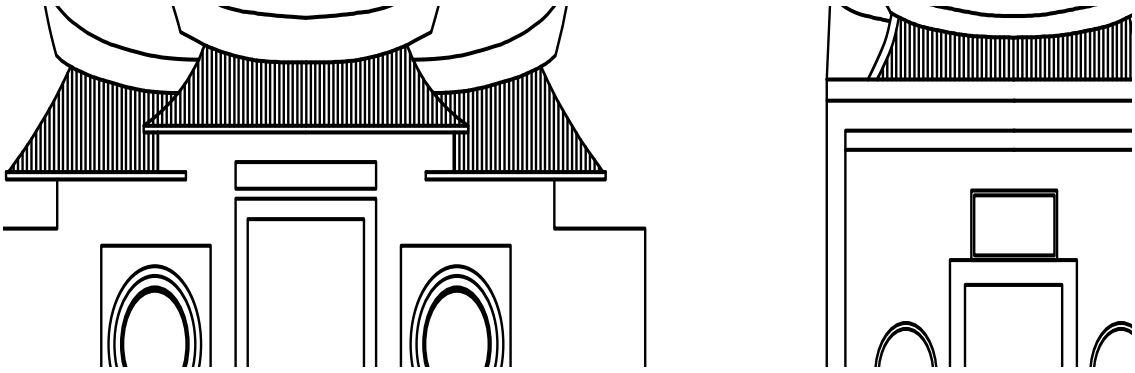

Figure 9: Chinese temples in Peninsular Malaysia- Curved main ridge

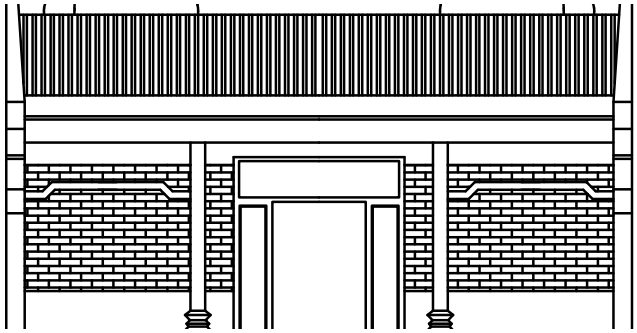

Figure 10: Chinese temple in Peninsular Malaysia- Strait Main Ridge
(Source: Drawn by author from Kohl, 1984: 102)

(a) (b) (c)

Figure 11: Cheng Hoo Teng Temple, Melaka, 17th various Southern Chinese influences:
a) Overall view-three sections gable roof b) Ornate gable wall c) Ornate raised main ridge and copings

It is \interesting to know that the Chinese temples in the Peninsula normally are not dedicated only to one particular cult whether Buddhism, Confucianism or Taoism, and can serve the followers of the three religions at the same time. However, despite the similarities in architectural qualities of Confucian, Taoist, and Buddhist temples in China, these temples generally serve as sanctuaries just for one of the mentioned cults (Kohl, 1984).

Ornamentation: The middle section of gable roof in a typical temple in Peninsular Malaysia is usually raised higher than the flanking parts and the inward curved main ridge and raised copings that separate the roof sections are profusely ornamented with various religion, symbolic, or floral motifs in colourful ceramic pieces. Contrary to the Northern or imperial Chinese style that demonstrate sedate ornamental figures in the same colour as the roof tiles, temples in the Peninsular, similar to Southern China's style represent elaborate multicolored decorative figures (Kohl, 1984). Two decorative methods, which have been used excessively in the Chinese temples in the Peninsula, are "Chien Nien" (means cut and paste from ceramic shards) from Fujian, and Shiwan from Guangdong that is a molding technique. Moreover, similar to Southern Chinese motifs, the ornamental themes in temples in the Peninsula mainly concentrate on subject matters of novels and plays, animal and floral motifs instead on pure religious themes (Chen, 1998; Kohl, 1984).

The study on elongated ridge corners in the temples in Peninsular Malaysia (refer to Figure 14) stated a profound influence of Southern China's style. Similar to the corner ends in Southern China (refer to Figure 13), these ridge corners are short, curved upward, and extremely ornate in floral or animal motives, which are allowed to be used by commoners in the feudal China. The differences with Northern Imperial style (see Figure 12) and similarities with Southern Chinese style are visible in the comparisons provided below.

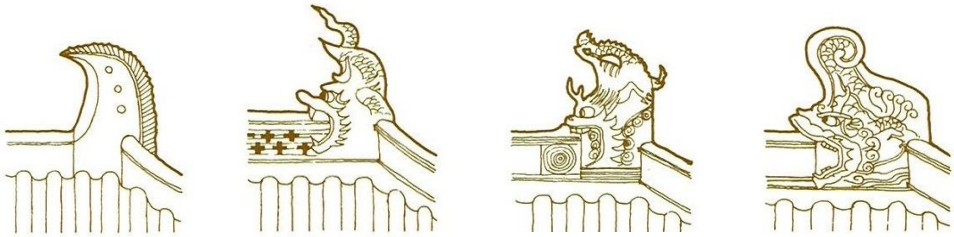

Figure 12: Ridge ornaments in various dynasties' official buildings
(Source: Zhang et.al., 1986: 193)

Figure 13: Southern Chinese ridge end

Figure 14: Melakan Chinese ridge end
(Source: Knapp, 2004: 202)

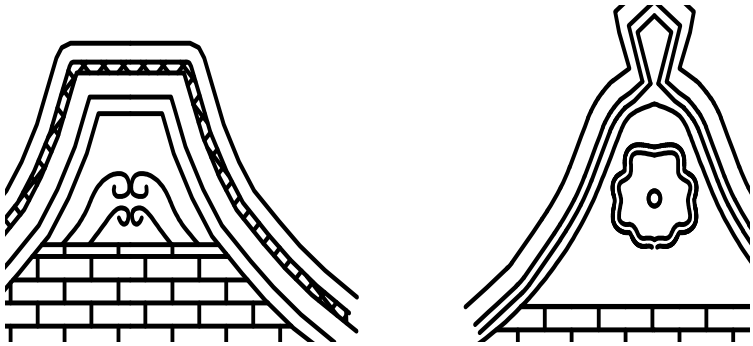

Figure 15: Elevated gable walls in Chinese temples in Peninsula
(Source: Drawn by author from Vlatseas, 1990: 93)

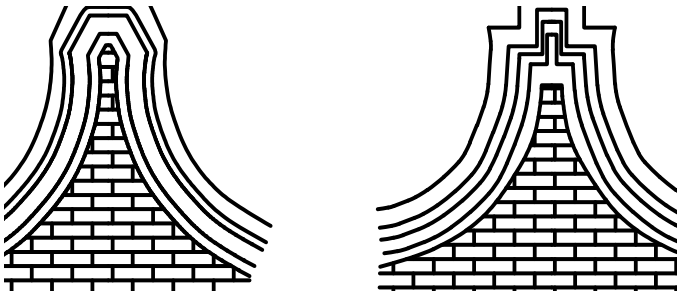

Figure 16: Elevated gable walls in houses in Taiwan, which have been inspired by Fujian and Gunangdong styles
(Source: Drawn by author from Chen, 2008: 177)

Another feature in temples that can be found both in Southern China and the Peninsula and rarely in Northern China is the elevated gable wall. The comparison between elongated gable walls in two regions demonstrates potent influence of Southern China's architecture on Malaysian temples. Figure 15 demonstrates examples of upraised gable walls in the Peninsula while Figure 16 shows specimens of this feature in houses of Taiwan. Chen Congzhou in "Chinese Houses" (2008) included Taiwan houses as a typology, which greatly emulates Fujian houses in Southern China. The similarities in provided examples are clearly perceivable.

Later Chinese Practices in Peninsular Malaysia. In contrast to the temples in China, which usually are located in religious complexes, Peninsular Malaysia's temples usually are individual structures; even so, there are some later examples in the area, which present the temples in a complex with pagodas and memorial arches. It should be noted that the later temples in the area usually follow Northern China's architecture, in which the main hall holds a decorated and heavy imperial roof (see Figure 17) instead of a three sections gable roof and stands on a podium. The applied ornamentations also are clear replications from Northern China's style; however in some cases the decorations are integrations of both style from north and south. Figure 18 shows an example of recent Chinese structure in Melaka, in which the imperial ornamentation of dragon is applied on the end of the main ridge. Moreover, the use of zodiac animals on the elongated eave also is an influence from Chinese imperial architecture that has been developed in Northern China.

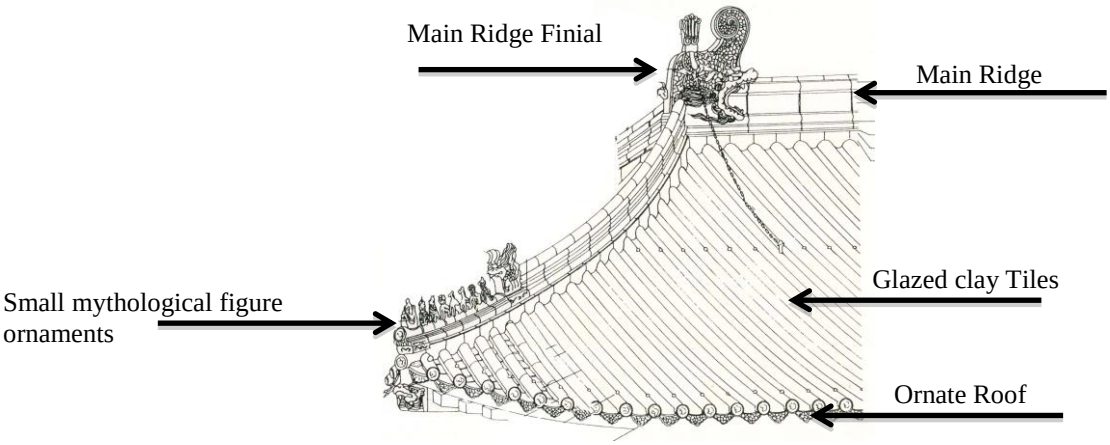

Figure 17: Various features on roof design in Chinese imperial buildings (Source: Ru & Peng, 1998: 156)

Figure 18: Application of imperial Chinese features in a recent Chinese structure in Melaka

Figure 19: Application of heavy hipped-gabled roof, an influence from Northern Chinese style in a recent Chines Temple in Pahang

Figure 20: Inspiration from Northern Style; Application of colour-painting and ornate roof in a recent Chinese Temple in Pahang

(a)

(b)

Figure 21: a) Tower-style Pagoda: The Renshou Pagoda, Fujian, Liang Dynasty.
(Source: Wei, 2000: 152)
b) Chin Swee Pagoda, Pahang)

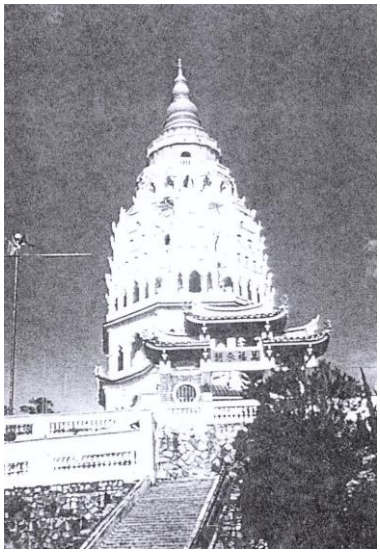

Figure 22: Ban Po Tha Pagoda, Penang
(Source: Yeang, 1992:129)

4.2 PAGODAS

Form and Ornamentations: Pagodas in Peninsular Malaysia can be found in many temple complexes; which vary in size and structure but mostly are of tower-style pagoda in brick and stucco. Figure 21 provides a comparison between a tower-style pagoda in Fujian and Chin Swee pagoda in Peninsular Malaysia. As it is discernible in the comparison, Chin Swee pagoda demonstrates Southern Chinese style by representing more pronounced upward-curved roofs and eave corners.

The most famous pagoda in Peninsular Malaysia is the Ban Po Shu Pagoda of the Ten Thousand Buddha in Penang (see Figure 22), which surprisingly does not completely represent Chinese pagoda's architectural style in form and decoration, even though the founder was a Fukienese (Kohl, 1984). This pagoda shows architectural influences from Europe and India; however the size reduction of each level to the top is a clear inspiration from Chinese pagodas. Moreover, the projected eave corners of the middle stories with dramatic upward curves show influence of Southern style.

4.3 COURTYARD HOUSES

Form: Early Chinese settlers in Malaysia were not able to build their own houses so they had to live in certain part of Melaka known as Kampung China, which consisted of simple buildings of timber and thatch and it was not until the 19th century that wealthy Chinese merchants could afford to construct their own courtyard houses (Purcell, 1951; Vlatseas, 1990; Yeang, 1992). Research on this typology shows great influences from Southern provinces of China; even though the basic characteristics of classical China's architecture have been preserved in them. A courtyard house in the Peninsula is an enclosed combination of buildings around a courtyard, which sometimes holds air-well: a feature applied in courtyard houses in Southern provinces of China that basically is a courtyard but reduced in size due to the climatic condition. Similar to Southern China's style, the courtyard houses in the Peninsula (refer to Figure 23) represent the main doorway on the main axis while in Northern houses doorways never appear on this axis to differ these structures from temples. The main buildings in these courtyard houses hold roofs with divided main ridge into several sections and projected eave corners as it is practised in Fujian province (Kohl, 1984; Liu, 1989).

Ornamentations: Unlike the commoners' architecture in Northern China, in which the builders could not use the imperial colours or symbolic sculptures as ornamental means, there are some specimens of the use of chestnut and red colours in Southern Chinese houses (Liu, 1989). Inspired from Southern style, the Chinese courtyard houses in Peninsular Malaysia represent a variety of colors in the ceramic tiles that are used to cover the frontal staircases or the lower parts of the facades. Other ornamental features in these houses that are inspired of Southern China's architecture are the cast-iron pillars around the verandahs and iron grillwork to screen them, which can be seen respectively in the Chinese-Portuguese houses in Macau and Cantonese houses. As it is illustrated in Figures 24 and 25, the elevated gable walls in Chinese courtyard houses in the Peninsula are of influence from Southern architectural style.

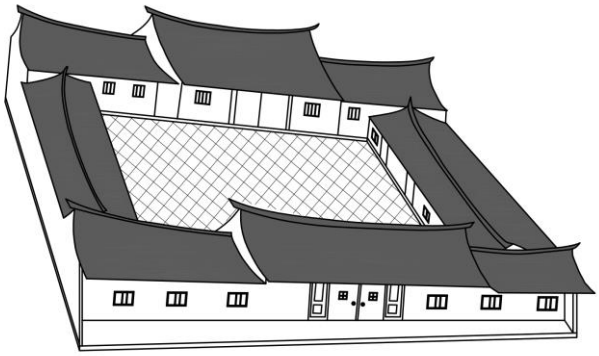

Figure 23: An example of Chinese Courtyard House in the Peninsular
Source: Drawn by author from Vlatseas (1990)

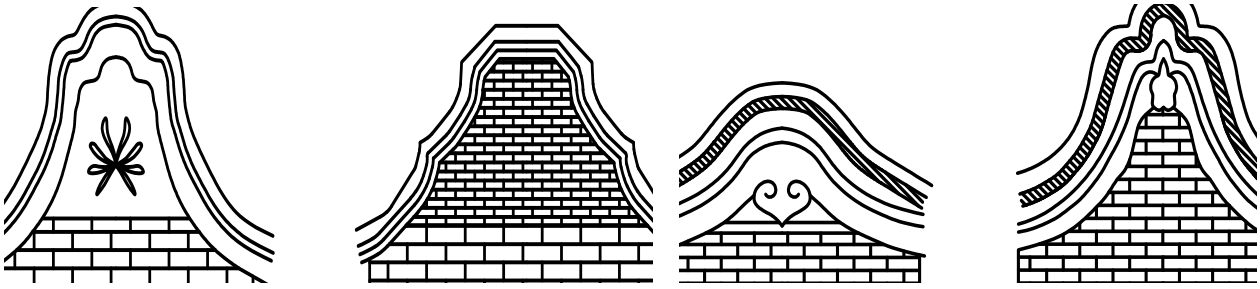

Figure 24: Raised gable walls in Chinese courtyard houses in Peninsular Malaysia
(Source: Drawn by author from Vlatseas, 1990: 93)

Figure 25: Raised gable walls in houses in Taiwan, which have been inspired by Fujian and Gunangdong styles
(Source: Drawn by author from Chen, 2008: 177)

5. CONCLUSION

Contacts between Mainland China and Southeast Asia happened over centuries mainly by individual Chinese traders and Buddhist pilgrims at the early stages of history, by imperial personages, admirals and numbers of individual merchants and craftsmen in later periods, and by Chinese labors and coolies after the 19th century. Although initially they did not settle in the region, in later stages countless individual Chinese merchants and labors migrated to Peninsular Malaysia and built numerous buildings inspired by their rich architectural traditions from Southern lands of China. The comparisons between primary and secondary data verify the fact that the Chinese architecture in Peninsular Malaysia mainly follows Southern China's architectural style, which are represented by certain features such as gable or three sections gable roof, overlapping roofs, elevated gable wall, air-well, or certain decorations such as application of colourful ceramic tiles, profusely ornamented ridge ends and copings in Chien Nien and Shiwan techniques; however, Chinese buildings in the Peninsula still maintain the basic architectural characteristics from classical China's architecture such as wall enclosure, emphasis on main axis, north-south orientation, sequencing to establish dominance, orthogonality, and symmetry. It should be noted that the later Chinese practices in the region mainly follow Northern China's architectural style by presenting heavy double-hipped roof, heavy podium, and certain ornamental means. Chinese architecture in Peninsular Malaysia has evolved through decades in order to develop different typologies such as temples, pagodas, and courtyard houses.

6. REFERENCES

Andaya, B. W., & Andaya, L. Y. (2001). *A history of Malaysia*. Hampshire: Palgrave.

Cai, Y., & Lu, B. (2008). *Chinese architecture: Palaces, gardens, temples and dwellings*. Beijing: China Intercontinental Press.

Chen, C. (2008). *Chinese houses: A pictorial tour of China's traditional dwellings*. Pleasantville, N.Y.: Reader's Digest Association

Chen, V. F. (1998). *The encyclopedia of Malaysia: Architecture*. Singapore: Archipelago Press.

Chinese Academy of Architecture. (1982*). Ancient Chinese architecture.* Beijing: China Building Industry Press.

Crossman, C. L. (1991). *The decorative arts of the China trade: Paintings, furnishings, and exotic curiosities*. Woodbridge, Suffolk : Antique Collectors' Club.

Denzin, N. K., & Lincoln, Y. S. (2005). *The Sage handbook of qualitative research*. London: Sage Publications, Incorporated.

De Witt, D. (2010). *Melaka from the top*. Malaysia: Nutmeg Publishing.

Fazio, M. W., Moffett, M., & Wodehouse, L. (2008). *A world history of architecture*. London: Laurence King.

Fisher, R. E. (1993). *Buddhist art and architecture*. London: Thames and Hudson Ltd.

Groat, L., & Wang, D. (2002). *Architectural research methods*. New York: Springer.

Harrison, B. (1967). *South-east Asia: A short history*. London: Macmillan London.

Hoyt, S. H. (1993). *Old Malacca*. Kuala Lumpur: Oxford University Press.

Juliano, A. L. (1981). *Treasures of China*. London: R. Marek Publishers.

Khoo, J. E. (1996). *The Straits Chinese: A cultural history*. Kuala Lumpur: The Pepin Press.

Knapp, R. G. (2004). *Chinese houses: The architectural heritage of a nation*. North Clarendon: Tuttle.

Kohl, D. (1984). *Chinese architecture in the Straits settlements and Western Malaya: Temples, kongsis, and houses*. Singapore: Heinemann Asia.

Levathes, L. (1994). *When China ruled the seas*. New York: Oxford University Press.

Liang, S.-C., & Fairbank, W. (1984). *A pictorial history of Chinese Architecture: A study of the development of its structural system and the evolution of its types*. Cambridge, Mass: MIT Press.

Lim, J. (2001). *Transforming traditions : Architecture in the ASEAN countries : Brunei, Malaysia, Indonesia, Philippines, Singapore, Thailand*. Singapore: ASEAN Committee on Culture and Information (COCI).

Lip, E. (1986). *Chinese temple and deities*. Singapore: Times Book International.

Lip, E. (1995). *Feng shui : Environments of power: A study of Chinese architecture*. London: Academy Editions.

Liu, L. G. (1989). *Chinese architecture*. London: Academy Edition.

Lou, Q. (2002). *The architectural art of ancient China*. Beijing: China Intercontinental Press.

Moore, W. (1986). *Malacca*. Singapore: Times Edition.

Munoz, P. M. (2006). *Early kingdoms of the Indonesian Archipelago and the Malay peninsula*. Singapore: Editions Didier Millet.

Neuman, W. L. (2003). *Social research methods: Quantitative and qualitative approaches*. Boston: Allyn and Bacon.

Pan, L. (2006). *The encyclopedia of the Chinese overseas*. Singapore: Chinese Heritage Centre.

Purcell, V. (1951). *The Chinese in the Malaya*. London: Oxford University Press.

Ru, J., & Peng, H. (1998). *Palace architecture*. China: Springer-Verlag.

Ryan, N. J. (1971). *The cultural heritage of Malaya*. Kuala Lumpur: Longman Malaysia.

Salkind, N. J., & Rainwater, T. (2009). *Exploring research.* New Jersy: Prentice Hall Upper Saddle River, NJ.

Tan, T. J., Ho, W. F., & Tan, J. L. (2005). *The Chinese Malaysian contribution*. Kuala Lumpur: Centre for Malaysian Chinese Studies.

Vlatseas, S. (1990). *A history of Malaysian architecture*. Singapore: Longman.

Wang, G. W. (1992). *Community and nation: China, Southeast Asia and Ausralia*. New South Wales: Allen and Unwin.

Wei, R. (2000). *Buddhist Buildings*. China: Springer.

Yeang, K. (1992). *The architecture of Malaysia*. Kuala Lumpur: Pepin Press.

Zakaria, A. (1994). *Islamic Art in Southeast Asia, 830 AD-1570 AD,* Kuala Lumpur: Dewan Bahasa dan Pustaka.

Zhang, Y., Chen, Y., & Zhong, Y. (1986). *History and development of ancient Chinese architecture*. Beijing, China: Science Press.