

Traditional Urban Form and Evolutionary Mechanisms-Quanzhou and Malacca

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Abstract— Ever since the days of the ancient Maritime Silk Road, as a result of the cultural interaction between China and Southeast Asia, the urban morphological evolution of port cities in these regions has always been relatively diverse and inclusive. This paper considers two typical traditional port cities, Quanzhou and Malacca, as research objects, analysing and comparing their morphological characteristics from the different urban evolutionary periods. Due to the morphological analysis, two categories of urban mechanisms that promote the urban evolution of port cities in different historical periods including both the local and the foreign influencing mechanisms can be summarised and scrutinised deeply. This paper concludes that Quanzhou and Malacca represent two important urban evolutionary modes on the Maritime Silk Road, the self- assimilation mode and the transplantation mode.

Keywords— urban morphology; evolutionary mechanisms; maritime silk road; cultural interaction

I. INTRODUCTION

Nowadays, with the rapid global economic integration and urbanization process, the urban economic development under the guidance of Maritime Silk Road has re-attracted the world's attention. The construction and innovation of this special city type, port city, can be viewed as the new development theme of current economic cities in the world. Since ancient times, the commercial trade and the material production brought about by Maritime Silk Road enabled some Asian port cities first to flourish and eventually embody their unique urban morphology. Both the trading activities and the multi-cultural blending have endowed these port cities with the characteristics of diversity and inclusiveness. Among these traditional port cities, Quanzhou in China and Malacca in Malaysia are two important representative cases. Quanzhou is a coastal city located in the southeast of the Chinese Fujian Province with its easterly region bordering the East China Sea. In ancient history, Quanzhou was well known for its “three bays and twelve harbours”, and was the starting point of Maritime Silk Road, as well as being the world-famous east port city. Malacca, or Melaka in Malaysia, is located at the southern entrance of the Straits of Malacca and has served as an important commercial port for more than 400 years.

A. Economic and Cultural Characteristics

The economic development of the old Quanzhou had relied on a combination of agriculture, the small-scale handicraft industry, and overseas trade. As early as the Middle Ages, Quanzhou had become one of the largest ports in the world, and it was able to maintain its prosperity for over two hundred years, something which has seldom been seen in history. Houzhu Port in was Quanzhou's main port and was located in the Licheng District [1]. Therefore, the Licheng District served as the hub for most foreign trade activity since time immemorial. The people of ancient Quanzhou were skilled in both sailing and shipbuilding, skills which could be viewed as material and technical conditions which contributed to the opening up of the “maritime silk road”. As a famous historical and cultural city in China, Quanzhou possesses a rich and precious cultural heritage. Being a prominent international port and the hometown of many overseas Chinese, many foreign cultures had a significant impact on Quanzhou, constantly infusing new blood into the local culture, giving birth to a Quanzhou culture which mixed both local and exotic features. Visitors from various countries continuously streamed into this ancient international port, conducting business, missionizing or simply traveling. Inevitably, some of these visitors intermarried with local people and settled in Quanzhou. The openness and tolerance of the regional culture in Quanzhou

also allowed for the peaceful coexistence of several different religions. Taoism, Buddhism, Islam, Christianity (including Catholicism), Manicheanism, Brahmanism, Hinduism, as well as various multifarious folk beliefs, were all represented and spread in the region [2].

Malacca has served as an international market-place since the fifteenth century. In the period of the Sultans, the economy of Malacca was already dependent on overseas trade, and the port city had a close economic relationship with different parts of Asia. With its strategic location at the southern entrance of the Straits, Malacca was a very appropriate place for exchanging and distributing commodities. Another contributory factor was the lack of any substantial agricultural hinterland or other natural resources [3]. In every year's busiest months, the monsoon drove people from foreign territories to Malacca. There were traders from the East such as the Chinese who brought silk, pottery and camphor, the Filipinos who brought sugar, and the people from the Moluccas who brought sandalwood, nutmeg, and cloves. At the same time, the Indian and Arab traders from the west arrived here with their commodities of cotton, cloths, incense, tapestries, dyes, copper weapons, and opium. Besides foreign trade, Malacca was also pivotal in local and regional trading networks. Commodities such as pepper, tin, gold, musk, rice, and arrack from the surrounding local areas were brought here for trading transactions [4].

B. Demographic Composition

Having a history of overseas migration spanning over a thousand years, Quanzhou is naturally one of the most famous hometowns of overseas Chinese people. Many migrants from Quanzhou left their native home and travelled abroad by sea, with their numbers being closely related to the fates of the maritime trade during different historical periods. During the Tang and Song dynasties, agriculture, the handicraft industry and the overseas transportation industry of Quanzhou all enjoyed periods of great development. Due to the ongoing military conflicts in Central China, large numbers of people also migrated to Quanzhou from inland, attracted by Quanzhou's stable society and its prosperous industries, contributing to Quanzhou's continuous population growth. Many foreign visitors from Arabian Peninsula, India, and Western nations also came to Quanzhou to conduct business or engage in missionary work. As more and more foreigners settled in the area, they began to build their own foreign districts, community centres, markets, temples, and churches. A large number of Arabians intermarried with the local people, the descendants of whom became a part of the Hui nationality.

As one of the busiest and oldest entrepôts, Malacca attracted people from all over the world throughout history. In this cosmopolitan city, different ethnic groups settled down permanently or temporarily. Since the end of the 18th century, the Chinese population increased rapidly and began to play a dominant role in the commercial centre of Malacca. The choicest commercial areas were gradually taken up by the Chinese instead of the Dutch Burgher. The total population of Malacca continued to rise slowly when it was taken over by the English. According to several censuses in the 1820s, the two largest ethnic groups in Malacca were the

Chinese and the Malays [5]. Unlike the Chinese domination of the centre of the town, the majority of Malays resided in the outer areas, predominating the suburbs. The Malays' marginal economic role in this period was responsible for this phenomenon. The Indian communities did not grow like the Chinese but maintained a stable population. There were hardly any more Indian immigrants following the decline of the Malacca port after the opening of Penang and Singapore. The Europeans, with a very small population in Malacca's English colonial period, including a small group of officers and some merchants, did not view the city as their home. They were a floating group having no intention to become long-term residents.

II. MATERIAL AND METHOD

A. Quanzhou

The region of ancient Quanzhou is thought to have been founded during the Chinese Tang Dynasty between the years of AD 718 and 886. During the Dali period of the Tang Dynasty (AD 766-799), overseas trade through Quanzhou had already taken shape. The gathering and discourse of foreign traders in the markets and streets became a very common sight in the region.

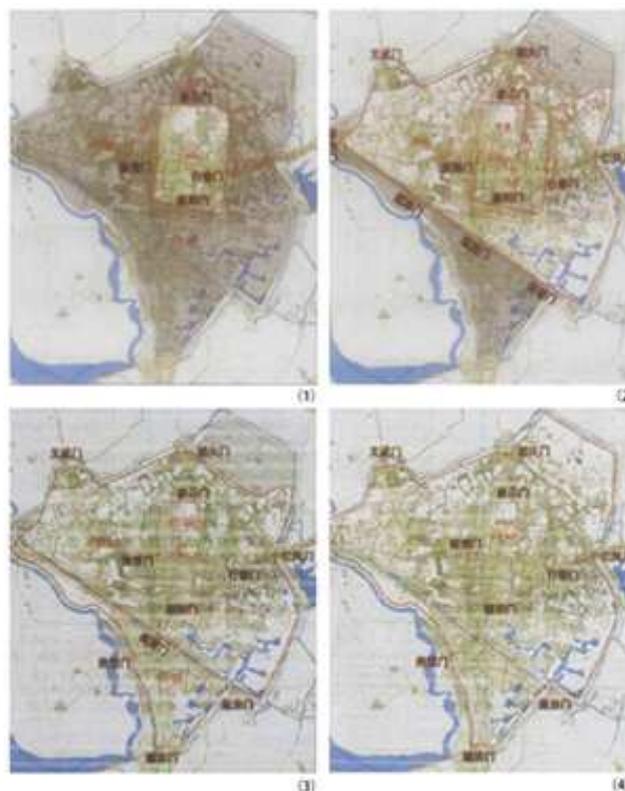


Fig. 1 Urban development of Quanzhou (Zheng, 2006), (1) Urban Form of Quanzhou in the Tang Dynasty, (2) Urban Form of Quanzhou in the Song Dynasty, (3) Urban Form of Quanzhou in the Yuan Dynasty, (4) Urban Form of Quanzhou in the Ming and Qing Dynasty

The period between AD 886 and 978 can be considered as the city's primary growing stage. Due to the rapid rate of economic development during this stage, Quanzhou's political status was enhanced. This was especially true under

the rule of Wang Group, also known as “Min” in the Five Dynasties, and Quanzhou even owned its own mint during this time. In general, the urban development during this period determined the basic physical pattern of Quanzhou city.

The period during the rule of the Song and Yuan dynasties was the most prosperous in Quanzhou’s history, and it developed significantly during this time. After the port’s official opening during the Song dynasty, the status of Quanzhou city was rapidly elevated and peaked during the subsequent Yuan dynasty. The primary reasons for the city’s great prosperity during the Northern Song dynasty are as follows: Firstly, the separatist forces in southern China had been eliminated quickly, whereas there were frequent wars between the Northern Song and the Liao or Western Xia in northern China. Secondly, its prosperity is owed in part to the establishment of the Shibo department, which was a local-level institution tasked with improving relations with foreign countries and expanding overseas trade. Finally, the expansion of the Arab Empire in western Asia largely improved the already flourishing development of maritime trade along the route of the South China Sea [6]. Therefore, ports in southern China (especially Quanzhou) enjoyed significant economic at that time.

During the early days of the establishment of the Ming dynasty, national defence was given particular attention. As a result, in 1374, the Hongwu Emperor enacted a strict prohibition on all diplomatic discourse and restricted overseas trade. The prohibition on overseas shipping made Quanzhou stagnate. In the early Qing dynasty, the ban on maritime trade was so strictly enforced that coastal residents were forced to leave their homes and move inland. Until 1683, Emperor Kangxi 22 years, the Qing Government recaptured Taiwan, and the maritime prohibition was repealed [7]. However, after suffering under this prolonged ban on overseas trade during the Ming and Qing dynasties, the economy of Quanzhou had been hit hard and never fully recovered its former prosperousness.

The urban morphology of Quanzhou is deeply affected by the requirements of traditional Chinese etiquette and social hierarchy. Since the eighth century, there were three city walls constructed successively which were called Ya Cheng, Zi Cheng, and Luo Cheng (Administrative City, Inner City, Outer City). The city walls prescribed a limit to the division of urban tissues, emphasizing the strict centrality and hierarchy. In the early days, with the functions of the fishery and simple maritime transport, the ports of Quanzhou were scattered located outside the city along the coastline, which did not form an overall scale. The old urban center was linked by a number of main streets, forming the major urban framework.

The street systems of ancient Quanzhou city were approximately formed by two big cruciforms (the north one and the south one), leading to seven city gates by six major roads. The north cruciform originated in the Tang dynasty was mainly used as the traffic arteries that could connect the northern hinterland. The south cruciform emerged in the Song dynasty with the commercial development, the relocation of ports and the construction of new bridges in city south. The south cruciform streets largely strengthened the relations between the ports and the urban areas. With the

gradual disintegration of Chinese feudalism, the old city walls of Quanzhou have been dismantled. However, the overall layout of the street system in the old urban district has been reserved.



Fig. 2 Block structure and street system of Quanzhou in the Ming and Qing Dynasty

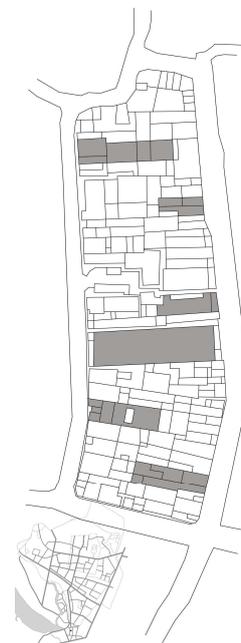


Fig. 3 Typical block one with chinese traditional houses in Quanzhou

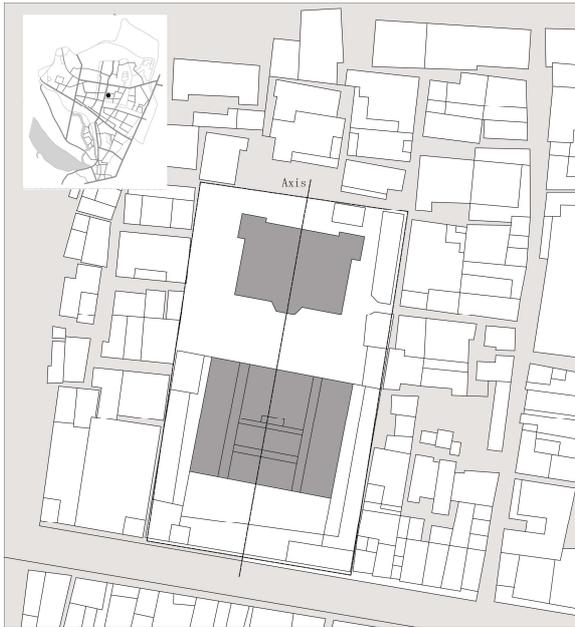


Fig. 4 Typical block two with chinese traditional houses in Quanzhou

B. Malacca

Malacca was established by Parameswara in 1402. Before his arrival, it was a small fishing village located on the west coast of Malay Peninsula, which had been mentioned for the first time in a Javanese poem in 1324 [8]. Due to its advantageous geographical location and the direct trade routes to China, Indonesia and India, Malacca soon became an important trading port after its founding. Reid argues that this place became a trading centre since there was no substantial agricultural hinterland [9]. In the early Chinese Ming dynasty, the great navigator Zheng He visited this entrepôt several times and initiated relations between the Chinese empire and Parameswara's sultanate. To heighten its own power and break free from the control of Siam, Malacca later became a tributary of China. According to old indigenous texts and the writings of foreign travellers and observers, the morphology of early Malacca in pre-colonial period comprised an un-walled town with a separate trading area and an administrative district, the Sultan's palace.

The Portuguese captured Malacca in 1511, which declared the beginning of European incursion into Southeast Asia. In the following 130 years, Malacca was under the domination of the Portuguese and the period of Malay Sultanate was finished. The Portuguese demolished the Sultan's palace and built a fort on the original site. According to McGee, in the early Portuguese time, the layout and setup of Malacca were left similarly with its Sultanate time, while the urban morphology and structure was transformed in the later years [10]. Malacca was already famous in Asia for its prosperous maritime trade before the colonial periods. However, after the arrival of the Portuguese, it became an important global entrepot located on the crisscrossed trading routes between the Indian Ocean and the Far East.

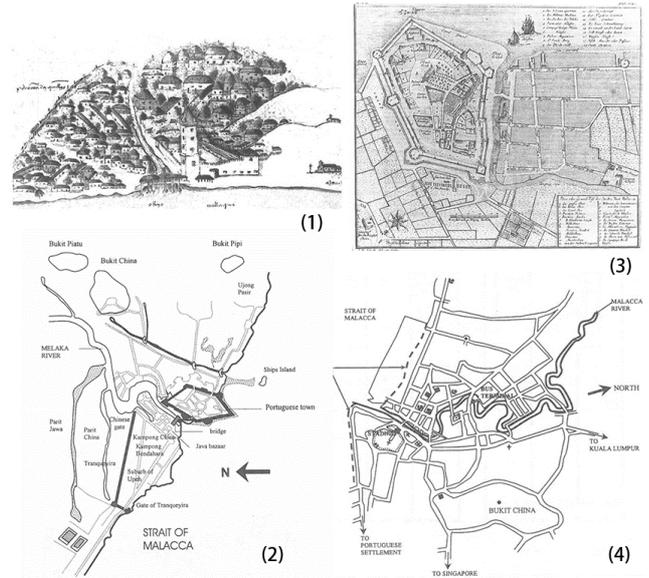


Fig. 5 Urban development of Malacca (Widodo, 2004 and Hussin, 2007), (1) Urban Form of Malacca in the Early Portuguese Period, (2) Urban Form of Malacca in the Late Portuguese Period, (3) Urban Form of Malacca in the Dutch Period, (4) Urban Form of Current Malacca

Malacca was captured by the Dutch and ruled by the Dutch VOC (Vereenigde Oostindische Compagnie) from 1641 to 1797. After expelling the Portuguese, the Dutch began to repair the damaged fort and at the same time demolished most of the Portuguese monuments, including the Catholic cathedral and many Baroque churches. The only building that was kept was St. Paul's church on top of the hill and this was later used as part of the fortress. During the Dutch period, the planning of Malacca was enhanced and its urban fabric improved [11]. According to Hussin, Malacca in the Dutch period could be morphologically divided into three parts, the European fort, the Asian town and its outer suburbs [3]. The European fort, which was also known as the walled European town, provided both working and living quarters for Dutch officers and merchants. On the opposite bank, there was an increasingly dense, rapidly growing Asian town with different racial groups.

In November 1795, Malacca was taken over and officially controlled by the British, who occupied the city with the main purpose of preventing other European countries from interrupting the seaway between China and India. The city was returned to Dutch administration in September 1818 and later returned to the English in 1825. Malacca experienced a short-lived revival in the early British period. Some modern urban planning regulations and new infrastructure were brought to Malacca by the British, with the buildings and streets transformed accordingly. In the following period, Penang, established by the British in 1786, rapidly replaced Malacca's commercial position and was appointed as the Malayan headquarters [12]. After the rise of Singapore since 1819 and after it was appointed as the capital city of the Straits Settlement in 1832, Malacca was totally substituted and its dominant position as an international emporium was further eclipsed. From then on, the city developed very slowly.

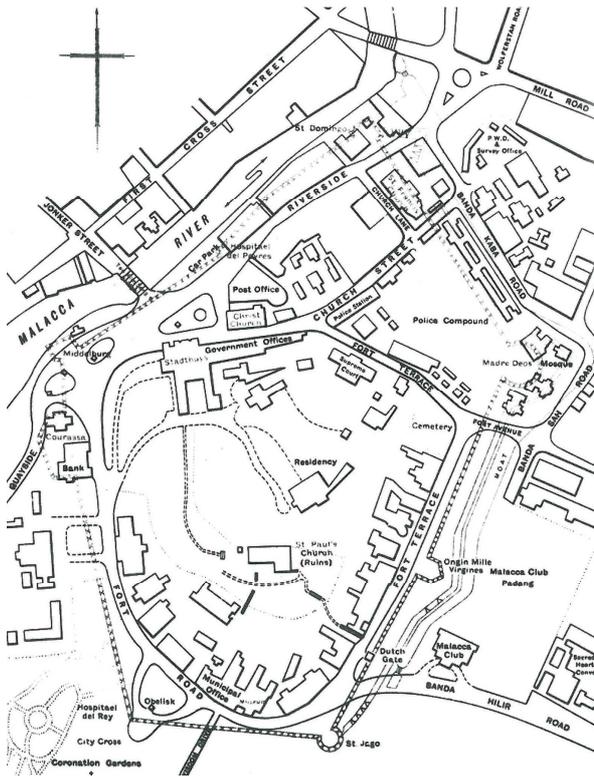


Fig. 6 Layout of Malacca fort in the Dutch period (Survey Dept. Federation of Malaya No. 117 1958)

The current stable street patterns of the old urban core of Malacca should trace back to the planning of the Dutch period because there has been little change in Malacca's geographical appearance since that time. As shown in a map of Malacca in the 18th Century, there were two major street systems. One system, with streets adjacent to the river or the coast, is the waterfront pattern. Streets in this pattern were developed horizontally alongside the riverbank or coastline. The other system was the clear grid pattern, in which the town was divided into several large blocks. The grid street system can be viewed as the colonial product that was brought to this city by the Dutch.

The waterfront street system was generated in response to the rise of maritime trade in history. Due to the excellent geographical location, streets and blocks in ancient Malacca were first formed in the areas adjacent to the river or the coast, then extending to the inland. Streets in this pattern were arranged horizontally in accordance with the trend of riverbank or coastline, with buildings along these streets placed perpendicular to the water lines. In general, the waterfront street system and the relevant blocks were the important places for shipping loading and unloading cargos. With different functional attributes and residential groups, the blocks along the seacoast and the Malacca River also showed different characteristics.

Besides the waterfront street-block system, other major streets in the old urban core of Malacca basically formed a clearly grid-patterned, in which the town was divided into several large blocks. According to Hussin, different ethnic communities including the Dutch Burghers, Malays, Peranakan-Chinese, Kelings and Portuguese lived in their own blocks, which were separated out by the grid during the early Dutch period [3]. Over time, these racial divisions

became more blurred. Shophouses that were built of bricks and roofed by tiles were arranged on both sides of the streets. These narrow buildings were extended from the main streets into interior areas by the construction of several courtyards. As a result, many interlaced alleys were formed inside each block.

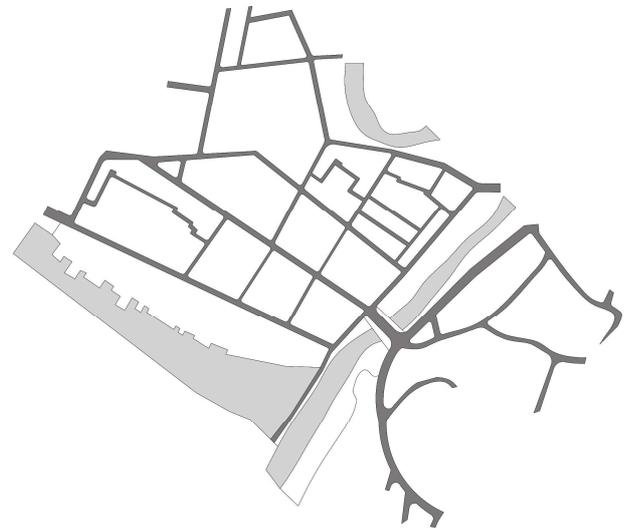


Fig. 7 Block structure and street system of Malacca in the Dutch period

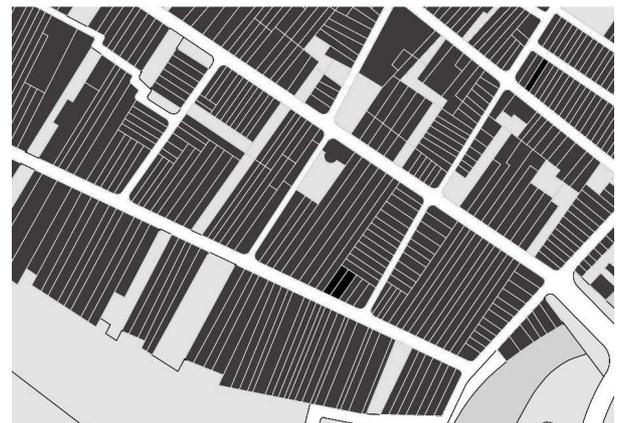


Fig. 8 Typical blocks with traditional Shophouses in Malacca

III. RESULT AND DISCUSSION

The above morphological analysis of Quanzhou and Malacca demonstrates that different port cities have experienced both influence and promotion through different mechanisms, thus manifesting their distinctive features. In general, the morphological evolution of commercial port cities was significantly affected by several types of mechanisms. As a result of the integration and transformation of these different mechanisms, sometimes dominated by one or more types, the relatively stable urban morphology of port cities on the Maritime Silk Road formed gradually. These influencing mechanisms can be divided into two categories:

A. Local Influencing Mechanisms

Local influencing mechanisms refer to the driving factors which originate from local areas. These factors always give

expression to indigenous characteristics. This kind of mechanisms can be subdivided into three sub-types. The first is the mechanism of geographic environment. It is decided by the local climate, geographic position or landform, such as good natural seaports, river ports or other convenient transport nodes. For example, both Quanzhou and Malacca are strategically located in key points on the Maritime Silk Road, thus forming their irreplaceable status and unique urban morphology in different historical periods. The second is the mechanism of the local upper class. This refers to the urban planning and management measures developed by the local ruling class or leadership to strengthen their dominance. Quanzhou's symmetric urban planning and management is in accordance with the Chinese tradition and reflects the ancient imperial authority. Early Malacca before the colonial period comprised an un-walled town with a separate trading area and an administrative district, the Sultan's palace. This urban form also represented the Sultan's rule from the past. The third and final sub-type can be labelled the mechanism of indigenous culture. This mechanism is developed by the local people through the prolonged inheritance of indigenous culture, including clan relatives, life customs, religious beliefs, etc.

B. Foreign Influencing Mechanisms

Foreign influencing mechanisms can be identified as the mechanisms produced by extrinsic commercial activities via the marine or river access. These driving factors, which were previously inexistent, developed continuously and grew with a certain momentum after the arrival of the extrinsic commercial activities. This kind of mechanism can be further subdivided into two types. The first one is the mechanism of moderate commercial activities. This refers to the impact of early commercial activities, such as barter, migration or cultural transmission in the early stages of the "Maritime Silk Road". All of these factors have a certain effect on traditional local culture, lifestyle and the mode of production. This kind of influence is relatively moderate and slow. The second one is the mechanism of the colonial ruling class. This was developed on the basis of moderate commercial activities. In this stage, the formation and evolution of those commercial port cities were dominated by the colonial ruling class instead of the former spontaneous nongovernmental behaviour. The colonisers' large scale plunder of resources and considerable commercial transactions caused a kind of forced import of foreign mainstream culture, with rapid and enormous impact on the indigenous culture. Taking Quanzhou and Malacca as examples, Quanzhou's urban evolutionary process was mainly affected by the mechanism of moderate commercial activities, whilst Malacca has experienced both types in chronological order.

IV. CONCLUSIONS

This study focuses on the analysis of the urban morphology of two traditional port cities and the different mechanisms that promote this urban evolution. According to the analysis above, the following conclusions can be drawn:

The urban evolutionary process of Quanzhou and Malacca represents two main development modes of traditional port cities on the Maritime Silk Road. In the case of Quanzhou,

the urban development or expansion is based on the original urban form. The city possesses a strong traditional culture and a stable urban embryonic form. Through trading activities and population migration, the embedded multi-culture has continuously promoted the expansion of urban scale and the enrichment of urban form. The study of this urban evolutionary mode should, therefore, emphasise the cities' interior changes. On the contrary, the urban morphological development of Malacca is persisted and evolved by relocation and transplantation, due to the historical inheriting relationship amongst Malacca, Penang, and Singapore. In this evolutionary mode, Malacca, in its developing cycle, has formed its own urban structure and demographic composition. When a new port city (Penang or Singapore) developed, the new city absorbed and inherited the former city's positive urban elements and abandoned the negative factors that lead to its urban decay. At the same time, some new characteristics are introduced for further urban development according to local conditions.

Both these two urban evolutionary modes have experienced similar urban development cycles. The key distinction lies in the difference in the process of change. The first category uses self-assimilation to deal with the weaknesses and contradictions of the urban development. It belongs to a kind of internal digestion and adaptive adjustment for urban morphology. The advantage of this mode is the consistency and completeness of the cultural inheritance. However, it involves more contradictions and difficulties than the self-changing process. The second category is to abandon the original problems through transplantation and redevelopment in a new area. This evolutionary mode can throw away the overmuch burden and get rid of the original leftover problems, but the urban culture in these cities can lack completeness and systemisation.

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