



Urban Tissue of Traditional Chinese and Southeast Asian Port Cities: The Influence of Maritime Trade

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ABSTRACT

In the process of urban development and regeneration, a city always gradually derives multiple morphological characteristics from its original single form. The transformation of urban form can be viewed as representation of consequence of overlapping of cultural attributes, an urban quality which is often ignored by property developments. This paper addresses that culture is a starting point to analyze traditional urban forms of Chinese and Southeast Asian traditional port cities. On the one hand, it analyzes their urban morphological characteristics focusing on the urban tissue level, which can reflect a process of urban evolution based on multi-culture brought by the ancient maritime trade. On the other hand, four port cities with similar cultural attributes including Quanzhou and Guangzhou in China, Hanoi in Vietnam and Malacca in Malaysia are analyzed comparatively to demonstrate their morphological differences and similarities. Based on the analysis of the two aspects, the paper recovers the relationship between cultural attributes and urban morphology, as well as some universal and special rules of urban development.

Keywords: morphological characteristics, Chinese and Southeast Asian port cities, multi-culture, urban tissue, maritime trade.

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1. INTRODUCTION

In the current global economic climate, the influence of maritime trade on urban development is experiencing renewed interest. The construction of port cities, and innovations in cities of this type, is attracting special attention. Under the influence of ancient Maritime Silk Road, the culture of Chinese and Southeast Asian coastal regions has always been relatively diverse and inclusive. Due to the different historical conditions and cultural factors, these traditional port cities in different countries or regions have presented their different morphological characteristics in the urban evolutionary process. The transformation of urban form can be viewed as representation of consequence of overlapping of cultural attributes, an urban quality which is often ignored by property developments. These morphological characteristics at the same time can react on cities, influencing the new development of urban life and local culture. This paper tries to reference the relevant morphological theory to analyze several typical port cities in China and Southeast Asia. Analyzing the spatial structural relations of these cases from the urban tissue level, the underlying reasons behind changes to urban form can be more easily deduced. Based on the commercial intercourse and cultural exchange among different port cities, this paper specifically investigates the concepts of cultural sustainability and then situates them within the urban morphological context. By exploring the formation mechanisms, developmental forces, and cultural connotations of urban morphology of these port cities, it is possible to provide both theoretical and methodological support for sustainable and harmonious urban development and urban regeneration.

2. RESEARCH METHOD

Social change in cities occurs in many ways but urban morphological analysis can help us connect these developments when studying an urban environment. M.R.G Conzen and Gianfranco Caniggia have

developed a series of methods that act as an effective schematic for the analysis of the urban morphology of specific cities. This essay will utilize these methods and will focus specifically on port cities in China and Southeast Asia.

If we combine the concept of an area having an “urban fabric” with the idea of city “plan units” we get what are called “Urban Tissues” or “Character Areas” in urban morphology, a useful analytical tool for the study of cities^[1,2]. Urban tissue can be used to explain the history and physical structure of cities, as well as the relationship between different urban areas and buildings. This essay uses the Urban Tissue concept to study the components of port cities. These components can be organized into groups according to their functions. These groups include: Administrative districts (with governmental and administrative roles), commercial districts (which provide trade and entertainment), and residential districts (which provide housing). When describing these areas, we must consider not only their relationship to physical geography, but their relationship to other urban areas as well. The relationship between urban areas is affected by, among other things, population, politics, economy, and the natural environment.

From a Conzenian viewpoint, three spatial units comprising central business areas, residential districts and fringe belts constitute the entire municipal landscape^[3]. Residential districts take up a big proportion of urban terrain, with a decisive role in municipal morphology. At housing or land utilization level, districts that are residential have a more consistent function and form than the other two units of spatiality, which is a reflection on the universal characteristics of spatiality of compactness and homogeneity. Muratori-Caniggia states that the different change processes in residential areas not only impact urban form and tissue, but are closely linked with city life and cities’ physical structure. This is a long-term

evolution process, reflecting the findings of various types of collective construction and operation at two levels: diachronic and synchronic. This evolution is representative of the “operational history” of the majority of cities ^[4]. The characteristics of the development of residential areas in traditional ports, in particular conventional residential areas with functions of commerciality that are closely linked to trading characteristics of a maritime nature, can be summed up as follows. Firstly, these areas took up very significant areas of their respective conventional harbor cities, and they formed the foundations for the growth of an entire city. Secondly, these areas once accommodated most of the urban population, which contained a variety of ethnic actions, closely linked through activities of trading. This resulted in the city morphology of these areas being diverse and flexible. Lastly, the establishment and development of these residential areas of tradition did not happen rapidly. Rather, they developed over a lengthy accumulative period.

This essay compares the urban tissues of Chinese and Southeast Asian port cities, especially the residential districts. Each city is analyzed not independently, but comparatively with other cities. Cities frequently develop in complex and organic ways which make them unique. All cities have their own network of special internal connections. Factors involved in a city’s development range from economic, to political, and to social. Their development is complicated and multifaceted. A thorough analysis that utilizes a comprehensive approach is needed in order to understand the formation of a city, and to attain insights into the urban morphology of any given area.

3. FINDINGS AND DISCUSSIONS

The morphological formation and evolution of port cities can be viewed as the result of the interaction of two major forces, which are the top-down control of the ruling class and the bottom-up spontaneous behavior of

the common people. In other words, these morphological characteristics reflect both the macroscopic impacts of economic activities, political factors or historical events on urban forms, as well as the feedback and self-adaptation of religion, culture, folk custom and lifestyles from the microscopic perspective. This paper selects four typical port cities as case studies, including Quanzhou and Guangzhou in China, Hanoi in Vietnam and Malacca in Malaysia. The morphological analysis of each city is carried out in the urban tissue in order to explore these morphological features more comprehensively and profoundly. At the same time comparative analysis is given among different port cities.

3.1. Urban Tissue of Four Port Cities

3.1.1. Quanzhou, China

Located in the Fujian province of Southeast China, Quanzhou forms part of the coastline of the East China Sea. The city has an illustrious history; famous for its ‘twelve ports and three bays,’ it was once the starting point of the maritime silk road ^[5]. The old city district has grown organically in a usual fish-shape pattern, due to its geographical restraints. The old city streets were built in the shape of two crosses ^[6], with Zhongshan road forming the backbone of the city. The irregular shape of the city has formed as a grid around this central road, which has been added to over many centuries.

The development of Quanzhou has been affected enormously by Chinese cultural norms, for example, the city is both highly centralized and symmetrical in shape. Typical of the time period when it was constructed, the administrative area is in the center of the city. The inner city that circles the administrative center was home to the city’s wealthier aristocratic citizens, whereas the outer city was inhabited by ordinary people [Figure 1]. Arranged in a dual-core pattern, the outer walls separate outer Quanzhou from its port area. This area was used originally for both trade and

the transportation of water, and some residential buildings for dock workers.

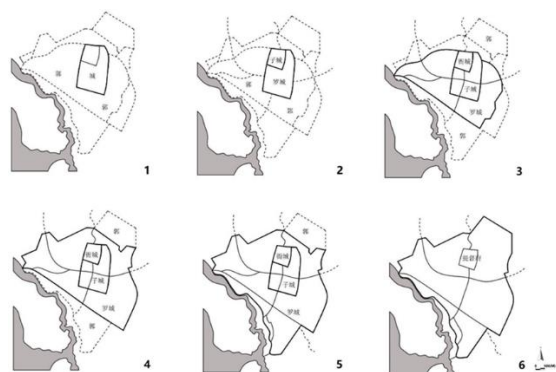


Figure 1. Urban structure of Quanzhou in different historical periods (Source: Redrawn by the author based on Zheng & Tian, 2012)

- (1) Before AD906
- (2) AD906 (Tang dynasty)
- (3) From AD906 to AD943 (Five dynasties)
- (4) AD1230 (Northern Song dynasty)
- (5) AD1253 (Yuan dynasty)
- (6) Ming and Qing dynasties

The street system in a cruciform design to the city's north, which has its origins in the Chinese Tang dynasty (618–907), has been formed at right angles to the administrative municipality. In the inner municipality, following the unit system of Chinese Li-Fang, markets were established to the east and west of the main north-south street. Both of these markets were places for trading and assembly. Obviously embodied here is the traditional Chinese focus on central symmetry and positioning in municipal construction. The West Street district in Quanzhou was a typical instance. The southern system of cruciform emerged in the Song dynasty (960–1279), considerably strengthened the affiliation between the city center and the port area^[7]. Shophouses functioning as both residential and commercial were placed along both sides of the Zhong Shan Middle Road, the main north-south road [Figure 2]. Alongside the major roads, some streets that were secondary were interconnected and inseparable with urban brooks and moats, which provided both water and land transportation for travel on a daily basis as well as trading activities. This road layout met the requirements of production and

residence within the city walls and also conformed to the local conditions of geography. The port district outside the walls of the city gradually evolved into another center of commerce providing transport, opportunities for trading, and living space for manual workers and traders. To summarize, Quanzhou's overall road system and block construct displays a solitary political center and numerous centers of commerce, which reflect the foundations of culture and ideology in ancient China that are commerce-assisted and politics-oriented.



Figure 2. Photographs of Zhongshan Middle Road, Quanzhou (Source: Photos by the author 2017)

3.1.2. Guangzhou, China

Guangzhou has been urbanized for most of its history, because of its advantageous geography. The famous Chinese principle of city construction, that water should run in front of a city, and hills should run behind, holds true for Guangzhou. The city sits at the base of the Yuexiu Mountains to the North and the Pearl River to the South. It is also hemmed in by an alluvial plain to the West and hills to the East. The position of the river and mountains has made the cities' north-south axis shorter than its east-west axis. The city is largely symmetrical, as it is primarily built around two roads, the Beijing Road (north to south) and the Zhongshan road (east-west). Due to the physical constraints of the terrain, the central administrative district expands east to west. The eastern half of the city is more residential and the western half more commercial. The inner city is ringed by the Yudai Moat, the outer city is located between this moat and the Pearl River^[8]. On the western side of the outer city is the Xiguan port area [Figure 3].

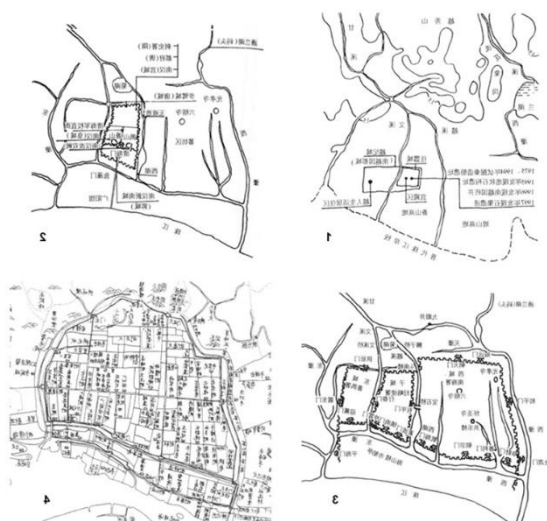


Figure 3. Urban structure of Guangzhou in different historical periods (Source: Zhou, 2005)

- (1) Qin dynasty
- (2) Tang dynasty
- (3) Song dynasty
- (4) Ming and Qing dynasties

During its early history, Guangzhou's ports were connected to the inner city by streets and waterways. These early ports were also located to the west and to the south, and mainly served as a means of transport. In modern Guangzhou commercial areas have developed, partly attributes to Western influences around these port districts. Pressure from the expanding residential district in the outer city has also affected the shape of the modern city. As a result, the city has a number of zone-shaped districts, which have a mixture of functions, and which are joined together by linear transverse connections.

Aside from two main thoroughfares crossing from east to west and south to north, Guangzhou's inner-city street systems mainly comprised perpendicular roads that formed T-junctions. The inner municipality also featured three urban moats and several natural ponds utilized for the transportation of commercial goods as well as daily travel. The outer city dissimilar to the inner city in that they were substantially limited by the Pearl River shoreline. Some of the streets running north to south which extended from the inner municipality began to snake, eventually

running at right angles to the river bank. Because of the outer city's narrowness from north to south, only a handful of roads in this region ran parallel to the bank of the river. The majority of the lanes or streets used to transport goods or obtain water were developed on a perpendicular scale to the bank, causing the formation of crowded street grids^[9]. To the west of the outer city, Xiguan had a terrain that was flat. Its inner roads interconnected in a grid pattern that was perpendicular. A variety of factors shaped the characteristics of the urban evolution in morphological terms in ancient Guangzhou. These included the requirements of hierarchy of tradition, topography and municipal functions. The structural patterns of the city were the result of compromise and interaction between these factors. Early in the development of Guangzhou, the inner city was developed predominantly according to tradition, with districts enclosed and roads less accessible. The subsequent development of the outer and inner cities was more dependent on characteristics of the external environment and the requirements of a functional nature.

3.1.3. Hanoi, Vietnam

Hanoi is the largest port in North Vietnam, located on the famous Red River. The River must be crossed when travelling south to north, and because of this, Hanoi has always been a city of serious strategic importance. Due to a series of historic developments, Hanoi has multiple centers; the Imperial Citadel, the Old Quarter and the French Quarter, respectively. It has been governed by both the Chinese, the French, and the indigenous population. This changing of hands is reflected in the city's layout and architecture. In pre-colonial times, the city was centered around the Imperial Citadel, which had an administrative function. Its location was chosen to protect it from flooding. Residential and commercial areas formed a ring around the Imperial Citadel, however unlike many other ancient cities, Hanoi's

layout was not strictly governed by social class.

The most densely populated area, the Old Quarter, dates to the 13th century. This area was a center for trade going in and out of the city, along the Red River. The Old Quarter's districts were divided up into guilds. Families from the nearby villages and plains moved into the Old Quarter to practice their trades in familial groups. These groupings are evident in the Old Quarter's layout. The members of each guild lived in an autonomous fashion, keeping to their family units and producing similar products to those their ancestors made [Figure 4]. During the colonial period, the final major area of the city, the French Quarter, was built. The French moved the administrative quarter away from the old Imperial Citadel and built part of the city in a Western style, on a gridline pattern [10]. These three major developments have led modern Hanoi to contain a variety of different urban areas with distinct morphological characteristics [Figure 5].

Hanoi's street and block formation evolved through various stages of history. Initially, Chinese traditions influenced both the layout and the division of urban Hanoi. Natural laws were followed in the planning of the city, with the development of the streets tending to be according to the original conditions of geography. In the traditional districts of residence and commerce, for example, in the Old Quarter, the configuration of the block construct and street system was based, to a large extent, on the requirements of rural settlements or families, and was a reflection of the local lifestyles and styles of production, such as fishing, agriculture, or small-commodity trading. In the subsequent period of French colonialism, however, the block and street development were impacted by the colonial culture of the West. French colonists brought to Hanoi the rational strategies of planning and methodical layouts familiar in Western urban construction. Therefore, Hanoi's block and street development no longer followed nature in its simplicity.

New municipal planning was employed and a number of construction projects were initiated during this time, such as the plugging of the original water systems, the construction of the street grid system in the French Quarter, and the restoration of the Old Quarter [11].



Figure 4. Hanoi's old streets and guild gates in the 1890s as drawn by French artists (Source: Hoang, 1990)

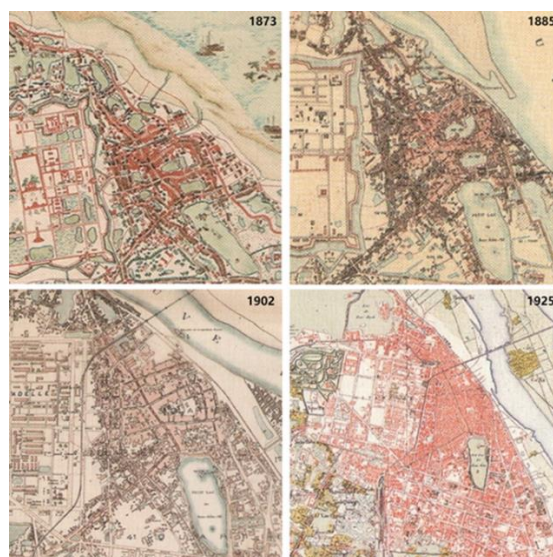


Figure 5. Historical change of the Old Quarter and surrounding areas, Hanoi (Source: National University of Civil Engineering, Hanoi)

3.1.4. Malacca, Malaysia

Malacca (Melaka in Malay) was an important commercial port for over 400 years, till it was eclipsed by the ports of Singapore and Penang. It is located on the south side of the straits of Malacca. Its advantageous location gives it access to trade routes to China, India, and Indonesia. It has always been reliant on commercial ocean trade. The original city was founded in 1402 by King Parameswara [12]. Shortly after its foundation, the city was visited by Zheng He, of China's Ming dynasty, who established trade links with the sultanate. By 1511, however, the city was occupied by the Portuguese, the first Europeans to reach

Southeast Asia. The city was later controlled by the Dutch VOC from 1641 to 1797, and then changed hands again, falling under British rule. During the last 150 years of its history, Malacca's hegemony as a center for trade was challenged by other ports. The urban morphology of this traditional city still retains many features from these earlier periods [Figure 6].

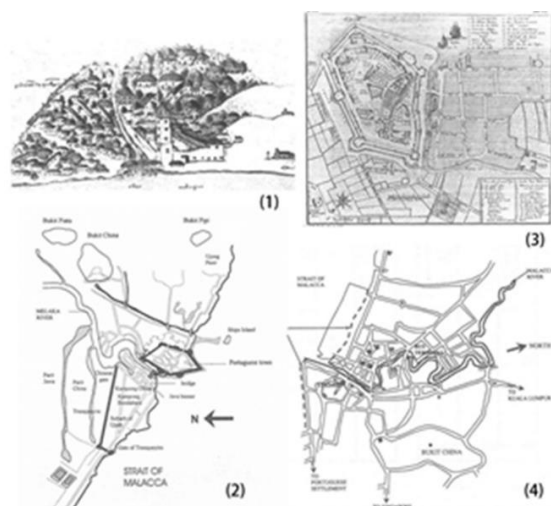


Figure 6. Urban development of Malacca (Source: Widodo, 2004; Hussin, 2007)

- (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

Urban morphological development of Malacca has been divided for much of its history along ethnic lines, although these rigid ethnic divisions have become less pronounced in modern times. The pre-colonial Malay inhabitants mostly worked in fishing and agriculture, whereas the Chinese immigrants to the city mainly worked in trade and industry. Settlements within the city reflect this division of ethnicity and labor. During the colonial period, the Malay, Chinese, Indian, and Keling inhabitants were segregated from the Europeans. The Europeans lived in a closed-off fortified area, where they undertook political and administrative tasks. They were divided by river from the Asian inhabitants, who lived together in a more cosmopolitan fashion. The Chinese remained a distinct group who lived along

the waterways, which was advantageous for the trades they were engaged in, while the Malay people mostly lived in vernacular kampong houses in the Northwest inland region. The areas occupied by these ethnic groups reflected their respective unique cultural characteristics. Later, however, racial boundaries in Malacca became blurred^[13].

The European area next to the Malacca River had a spatial layout that was scattered and random, corresponding to topography while at the same time, preserving certain features of the Western municipal planning tradition. Across the river were two significant road systems, one of which, with roads adjacent to the coast or the river, formed the pattern of a waterfront, developing on a horizontal level bordering the coastline or the river bank. The other system divided the area into a number of large blocks, demonstrating a transparent grid pattern. The grid road system can be perceived as a product from the colonial era, introduced to Malacca by the town's colonists. At a later phase in the history of the city, the race boundaries became blurred, the original connection between the ethnic characteristics and the block features was lost. The key criterion for the division of blocks was wealth^[14]. Varying functional layers were positioned to the inland region from the shoreline. As a result, European colonists' influence on the culture and municipal morphology of Malacca was obviously limited. The influence of Europe on municipal morphology had already become weak by this period, with only a small planning and adjustment function^[15]. The traditional municipal morphology of Malacca emphasized functionality. The choice of locations for and construction of areas of ethnicity based on the social labor division were mostly determined by the requirements of living and production. Initially, urban structures in this port city were developed naturally in compliance with their own laws and requirements of development. These components started to interconnect and influence each other once

they had expanded to a particular size, due to the cultural multiplicities within the city^[16]. However, their inherent morphological regulations have always been valued highly and within this traditional port district, they have been largely inherited intact.

3.2. Comparative Analysis

This section summarizes the similarities and differences in the cultural significance of urban-tissue features between the above port cities.

3.2.1. Features of Different Historical Periods

Regions and cities differ significantly in the nature and degree of the development of their urban tissue. However, every port city has experienced the stages of emergence, growth, prosperity, and transfer in the development of its maritime communication and trade.

The Chinese port cities Quanzhou and Guangzhou, representing starting points for the Maritime Silk Road, were built far from the country's northern political center. Before the rapid development of maritime trade nearly 2,000 years ago, these cities were constructed with city walls bounding their local settlements. With the development of the Maritime Silk Road after the Chinese Sui (581–618) and Tang (618–907) dynasties, both Chinese and foreign merchants gathered in these port cities. As a result, each city gradually expanded outwards, with bustling commercial and residential areas forming in the outer city. From the Ming dynasty (1368–1644), urban expansion occurred continuously, and by the late Ming and early Qing (1644–1911) dynasties, Western lifestyles and cultures had been gradually introduced to port cities. In the late Qing dynasty, relatively stable and prosperous commercial centers formed in different areas of these cities. At the beginning of the Chinese Republican period (1912–1949), the old city walls with restricted traffic were demolished, creating links between

originally closed areas and expanding the urban scale.

Hanoi, the capital of Vietnam, has been colonized and governed by foreign countries, including China and France. The political influence of these colonizers contributed to the city's rich history and development. Before Hanoi's colonization, the Imperial Citadel in Thăng Long was the administrative center of the city. This walled area was surrounded by commercial and residential areas, making up the rest of Hanoi. Outside the Citadel, the capital's Old or Ancient Quarter, created in the 13th century during the Lý and Trần dynasties, had a less formal structure than that of similar cities of the era. The Old Quarter became a densely populated mercantile quarter that supplied the Citadel, utilizing Hanoi's waterways for imports and exports. When the French colonized Vietnam in the late 1800s, however, Hanoi began to change. The French-led government created a grid-based French Quarter, reminiscent of such structures in larger cities in France, which became the new administrative area of Hanoi. As a result, Hanoi's architecture is vastly different in style, design, and characteristics from that of other cities in Vietnam^[17].

In pre-colonial Malaysia, the city of Malacca comprised an unwalled town alongside an area for trading and the Sultan's palace, which was used for administrative purposes^[18]. In the early Chinese Ming dynasty, Zheng He visited this entrepot several times to forge a relationship between the Chinese empire and Parameswara's sultanate. Zheng He took Malacca as his base camp. During this period, defensive walls, drum towers, turrets, big warehouses storing cargo, and Chinese temples began to be built in Malacca.

Malacca became a Portuguese territory in the 1500s, and the Portuguese played an important part in the city's development. The Portuguese created a European area, walled in by an impressive fort, which created an ethnic divide between Europeans

and indigenous dwellers taking up residence across the Malacca River. However, this did not last, as the Dutch – who were next to colonize the country – subsequently destroyed all of the Portuguese buildings within the fort, but retained, and even added to, the cosmopolitan buildings on the other side of the city. The remaining walls of the fort surrounded a new European area, home to Dutch officers and merchants. The indigenous areas of Malacca also started to grow, but quickly became overpopulated and crowded as well as more ethnically diverse. The British began to govern Malacca in the early 1800s, and were responsible for creating modern urban planning regulations alongside a new infrastructure. This process of construction included the first use of brick in Malacca^[15]. During this time, the walled fort was destroyed and the city began to slowly develop. The newly built cities of Singapore and Penang soon surpassed Malacca as important commercial cities.

3.2.2. Planning Concepts and Ideological Foundations

Traditional port cities across the world showed similarities in urban planning. All of them were developed to enhance the power and wealth of the ruling classes. Ports were historically used for trade, making them a vital component of any economy. There were some differences in planning between nations. Early Chinese planning paid attention to spiritual elements such as heaven and deities, and pointed to the role of humankind in the stability of the country. Urban planning in early European port cities emphasized functional attributes, based on the demand for rational planning and design. Many Southeast Asian port cities developed from small fishing villages or rural settlements. At first, there was some influence from China in terms of the urban spatial layout, but over time ports in Southeast Asia began to more closely mimic simple, functional European designs. The Chinese port cities of Quanzhou and

Guangzhou are excellent examples of traditional design features. These cities represent their local cultural identity while also, to some extent, assimilating culture and design from abroad. This is different from the design of Southeast Asian ports, which was more influenced by population migration and cultural variation as well as the effects of colonialism.

3.2.3. Relationships between Ports, Commercial Districts, and Residential Districts

Trends in development and politics play a central role in how different forms of urban tissue change and develop in port cities across the world. Looking at these internal relationships can yield a better understanding of the relationship between urban morphological characteristics and how cities develop economically. This information can even play an important role in influencing urban sustainable development.

Within historical port cities, different forms of urban tissue could be found: residential, commercial, and port. Residential districts generally provided accommodation for ordinary residents. This was different from the Imperial City in Hanoi, which was home to the ruling class. Commercial districts were where a lot of trade took place, and they were often well linked to ports by trade routes. Some commercial areas also contained dwellings for traders and merchants, and the markets and other areas were often split into sections, such as the East Market and the West Market. Consumers traversed central commercial areas, often with links to streets or shops. This was common across Southeast Asia. Finally, port districts were linked with commercial districts, and brought in goods as well as exported them. Waterways were commonly used for transportation.

Based on these different classifications, similarities can be identified across regions and countries. In China, the commercial ‘points’ were markets located distant from

ports; their main purpose was to serve nearby residents. Typically, these commercial areas were separated from residential areas with clear boundaries and independent forms of tissue. As commercial ‘lines’ (streets) linked various points within the district, commercial districts could spread and grow as the commerce within them did. In these Chinese cities, commercial areas were most commonly found near ports and waterfronts, as trade, production, and transport could be carried out nearby. The commercial lines used typically took the form of streets or canals between the ports and inland areas. In Southeast Asian port cities, the boundaries between residential and commercial districts were less clear, and areas tended to have more hybrid functions – both residential and commercial. Traditionally, these cities had enclosed characteristics and a centripetal formation, but over time they became subject to the increased influence of colonizers; cities opened up and residential and commercial areas became more interlinked [Figure 7].

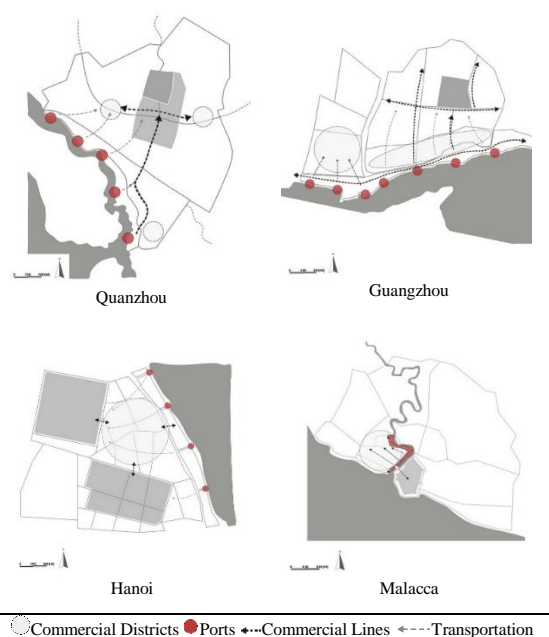


Figure 7. Relationships between different districts of four port cities (Source: Drawn by the author)

3.2.4. Division of Urban Tissues

Wherever they were located, port cities commonly had multiple co-existing

districts, which were divided based on culture, ethnicity, and other socio-economic factors. In Chinese cities, there were also divisions based on the feudal-hierarchical system, which separated social classes from each other and limited any form of social cohesion or social mobility. In Southeast Asian cities, the division of districts in pre-colonial times was based primarily on functionality, such as individuals’ living and working requirements, specifically along lines of trade. However, it must be highlighted that these divisions always separated ethnic groups. With the arrival of the colonizers, the division of districts in Southeast Asian port cities tended to follow hierarchical social frameworks as the colonizers sought to control populations and politics.

In the early stages of the development of most port cities, the nature of the relationship between city and port was decided mainly by the local government or ruling class. The government of the city was responsible for any decisions on the development of the ports. As ports played an important role in trade, it was in the government’s or administration’s best interest to ensure that they were developed and fit for purpose. Western countries that had control over several ports – specifically in Southeast Asia – were often responsible for such development, as it enhanced their trade and economy. This, in turn, had a positive impact on cities where ports were established and developed. The development of ports was based on the needs of the commerce and transport industries that most frequently used the ports. In Southeast Asia, these ports were developed from small fishing villages in pre-colonial times, which were then subsumed into larger nearby cities. This differed from development trends in China, where the distance between the port and city was greater; ports were often more rural and cities more urban and developed.

The urban design of Quanzhou was in line with more widely recognized traditions of Chinese urban design, planning, and

construction. The ruling class had a strong grip on power in ancient China, and foreign influence was limited during that time. There was an interplay between cultural districts that represented a duality within Guangzhou. Whilst the ruling class was still the most influential factor in development, there was also a recognition of culture and traditional customs. Over time, however, Western influence was absorbed as foreign trade grew. Commercial areas began to develop where trade was needed. Divisions within urban tissue in Malacca were the result of Dutch planning concepts. Malacca was a typical Southeast Asian port city; in that it had a weak cultural foundation and was predominantly the result of the growth of a small village into a port. This meant that the Dutch influenced the area's trade, economy, politics, and culture, which ultimately affected its urban design^[18]. The other foreign cultures present did not manage to impact this trend, and thus played a limited role in the development of Malacca [Figure 8]. There were also clear divisions in the urban tissue in Hanoi. The Imperial City was the home of the ruling class, the Old Quarter was the home of traders and general city residents, and the French Quarter was home to the French colonists. Such clear divisions played a role in how cultures interacted and functioned alongside each other [Figure 9].



Figure 8. Photographs of Heeren Street and Malacca River, Malacca (Source: Photos by the author 2015)



Figure 9. Photographs of aerial view of the Old Quarter, Hanoi (Source: Photos by the author 2016)

4. CONCLUSION

The formation of traditional port cities was a long process. Much planning went into creating a city, especially port cities, which had a vital practical function often dictated by the ruling class or aristocracy. Many traditional port cities in both China and Southeast Asia had coexisting districts, which were divided based on socio-economic, cultural and ethnic lines. By exploring urban tissue across different types of port cities, one can begin to identify the traditional Chinese characteristics of homogenization and the Southeast Asian zoning plans.

The morphological evolution of Chinese port cities was inextricably bound up with tradition and social hierarchy. As already mentioned, urban design was based on traditional and spiritual considerations. This is one reason for the symmetry and centripetal design of Chinese port cities. Such designs were created from the inside to the outside. Over time, an external influence was exerted on ports through maritime trade, which meant that ports became more diverse and multicultural – as reflected in their design as well as their populations. Such multiculturalism enhanced the local and traditional elements already in place and enriched the urban design. In Chinese cities at the end of the feudal era, the inner and outer walls that surrounded many cities were also removed. City walls are a complicated issue in urban history nowadays. There are successful cases of the demolition of city walls in modern history, such as Paris and Vienna. Cities have also developed very successfully largely by keeping their city walls, such as Nanjing and Xi'an in China. In the case of Beijing, the demolition of the City Walls brought a loss of cultural heritage. However, in these Chinese port cities, the demolition of city walls further enhanced diversity and removed the physical barriers between different social classes and ethnicities. Over time, port cities became more homogenous and

society and architecture became more integrated.

This differed from the situation in Southeast Asian port cities, which were influenced by outside and foreign cultures. There were two types of port city in these countries. First, the new traditional port cities built from small fishing villages to some extent reflected their original urban morphology, but with some influence of colonialism. Cities of the other type were more established politically and culturally; they were not small fishing villages but developed port cities, whose urban morphology grew to reflect the existing differences between ethnic groups, resulting in established, individual characteristics.

Overall, from the trade routes first established in the days of the ancient Silk Road to maritime development under colonialism, various forces have shaped the development of traditional port cities. Over the ages, these cities have become modern and diverse settings that are still relevant both commercially and culturally. The morphological development of these cities is the result of influencing factors such as ethnicity, commerce, and culture. There is much literature in this area, providing an excellent starting point for further research to inform future urban development that recognizes how past activities can determine the morphology of urban design.

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CONFLICT OF INTEREST

The author declares no conflicts of interest.

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