

UDC 711

Tian Mengxiao

Faculty of Architecture, The University of Hong Kong,
R723, Knowles Building, Pokfulam Road, Hong Kong
e-mail: tianmx@connect.hku.hk

LAND RECLAMATION AND CREATION OF NEW VILLAGES THE CASE STUDY OF SHA TIAN TOWN ON THE PEARL RIVER ESTUARY

Abstract: Since the 15th century, the shifting geographic pattern of the Pearl River Delta and extensive land reclamation activities prompted the generation of vast coastal areas. The villages created on the newly reclaimed land played an important role in the region's local and international economic activity and became part of the Great Bay Area in recent years. By using villages in Sha Tian town (沙田鎮) as a case study, this paper shows that the mechanism of land reclamation influenced the formation of settlements, during the process whereby the shoal of the coastline became small fishing villages at the fringe of the cities which were eventually absorbed into the urban space. Using both field research and a literature review, this paper discusses three specific time periods. In the mid-Qing dynasty, policy changes and the natural conditions drove the boat people who assembled on the sea to reclaim land in the Sha Tian area. During the second period, these boat people moved to the newly reclaimed land and erected different types of buildings to support their changing way of life, establishing linear villages along the waterway and dike. Finally, with the urbanisation of the past two decades, the form of these villages became transformed in different ways according to the location and the relationship with the urban area. This paper situates this case study within the discourse of urban regeneration while linking it to the sustainability of urban villages. In this way, the paper provides a critical evaluation of how reclamation activities produced new patterns of landscape, the changing concepts of villagers towards nature and the river system, and the contradiction between the demands of modern life and the traditional village underlying the ongoing transformation.

Keywords: Pearl River Delta, land reclamation, settlement formation.

Introduction

The Pearl River Delta, located in South China and adjacent to the South China Sea has become one of the most rapidly advanced economic regions and one of the most populated areas in China (Fig. 1). The coastal areas of the Pearl River estuary are experiencing rapid urbanisation with the development of light industry, high-tech industry and international ports. The Pearl River Delta has a historic dense water network connected to the cities on the delta. As one of the most significant natural forces, water not only shaped the urban landscape but also served as the economic foundation for urban development. The intimate relationship between people and water led to innovation in water and land reclamation technology.² During the Qing Dynasty, there were significant changes in the geographic landscape of the Pearl River Delta.

On one hand, the increasing speed with which sand accumulated silted up the tributaries of the Pearl River and the Shiziyang Ocean became narrower.³ On the other, vast land reclamation also took place, and this reconfigured the coastline with new land extending into the ocean. The villages built on this reclaimed land participated in world trade and the regional economy and became well-developed areas of the Pearl River estuary (Fig.2). Thus, the land reclamation activities had an effect on the creation of the new villages and also influenced the urban fabric today.

© TIAN Mengxiao, 2019

²Qihao Weng, "A Historical Perspective of River Basin Management in the Pearl River Delta of China," *Journal of Environmental Management* 85, no. 4 (2007). P1061

³ Ibid. 1050



Figure 1. Pearl River estuary
Source: Illustrated by the Author

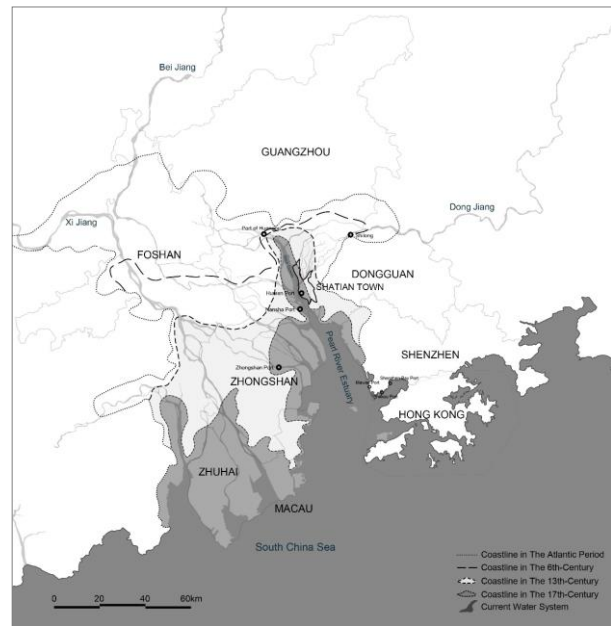


Figure 2. Coastline evolution in the Pearl River estuary. Source: Amend by the Author base on Huanting Zhao 趙煥庭, . Zhu Jiang He Kou Yan Bian 珠江河口演變 (Bei Jing: Hai yang chu ban she, 1990)

Sha Tian is a typical example of the new villages. This article uses Shia Tian in an attempt to construct a historical narrative of the formation of the villages after Mid-Qing Dynasty (Fig.3). It illustrates the changes in the landscape of the main Pearl River Delta estuary area by reviewing historical mapping archives and discusses the relationship between the village and land reclamation, considering both the environmental transition and the change in the livelihood of the residents through the use of historical research methods. As suggested by the meaning of its name, sandy fields, Sha Tian was developed on a particular type of farmland that was reclaimed from sea beaches or river marshes.¹ This is generally a flat watery region with a maze of rivers.

Sha Tian is located on the southwest of Dongguan City and on the east coast of Shiziyang Ocean. It was one of the key passages for maritime trade in olden times. However, the area had almost no land before the early Qing Dynasty. She Xi mountain, which is now standing in the middle of the town was an island at that time (Fig. 4-1, 4-2). During the Qing Dynasty, the extension of sandy fields connected the islands and formed the beginnings of the town (Fig. 4-3, 4-4).

Through the point of the process of the boat people, who assembled on the ocean around Sha Tian and moved to land during the Qing Dynasty, the paper first examines the requirement for reclamation of this area from the perspective of economic activities and policy changes. It also shows the transformation of the production mode during the different stages of land reclamation. The research also elaborates how the "boat people" built a particular type of housing and formed the village when they began to live on land. The principal argument is that there existed a correlation between environmental change and human production, as well as a struggle for power and space during the period of reclamation and the formation of new villages

¹Weng. P1050

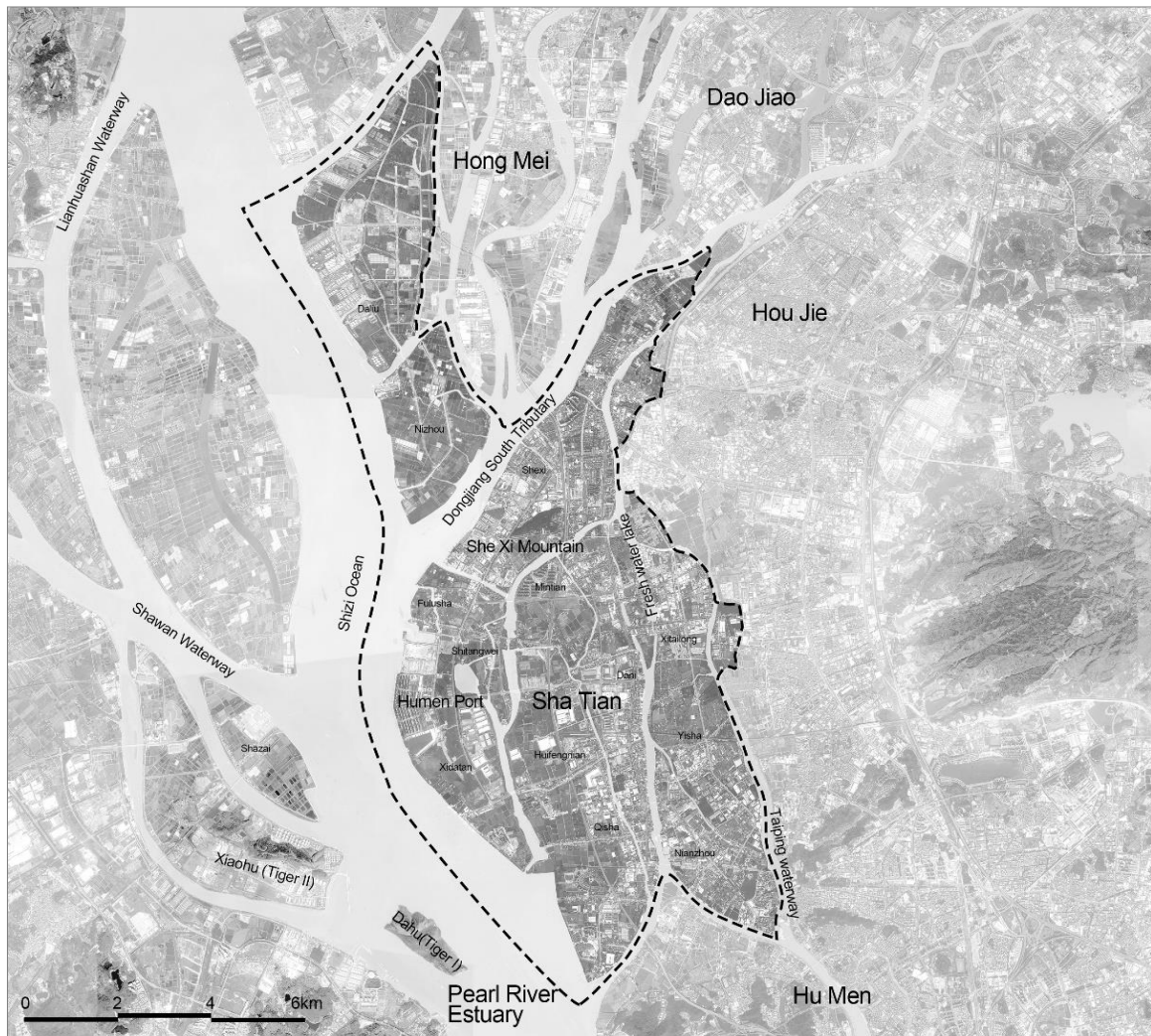


Figure 3. The study area – Sha Tian Town. Source: Illustrated by the Author



Figure 4-1. Map of Guangdong Fu in 1522-1566 (During the Years of Emperor Jiajing in the Ming Dynasty);

Figure 4-2. Map of Dongguan in 1665 (Fourth Years of Emperor Kangxi in the Qing Dynasty)

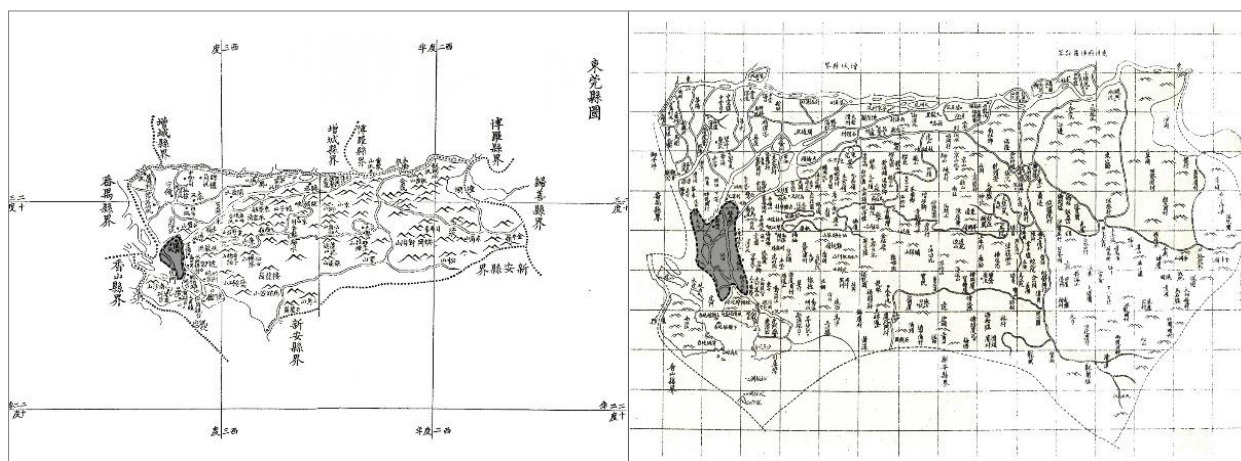


Figure 4-3. Map of Dongguan in 1863 (Third Years of Emperor Tongzhi in the Qing Dynasty),

Figure 4-4. Map of Dongguan in 1897 (Second Years of Emperor Guangxu in the Qing Dynasty)

Source: Fig.4.1, Chou Hai Tu Bian, Yan Hai Shan Sha Tu, Guang Dong Qi, 籌海圖編·沿海山沙圖·廣東七, Zheng Ruozeng, 鄭若曾. In Guanglian Tan 譚廣濂, *Cong Yuan Fang Dao Jing Wei: Xiang Gang Li Shi Di Tu Cang Zhen* 從圓方到經緯: 香港與華南歷史地圖藏珍 (Xianggang: zhonghua shu ju (Xianggang) you xian gong si, 2010). Fig.4.2, Yuan Bai Sha Si Tu, 原白沙司圖, *Dong Guan Xian Zhi*, 東莞縣志. In *Dongguan Li Dai Di Tu Xuan* 東莞歷代地圖選, (Dongguan: Dongguan shi zhen xie wen shi zi liao wei yuan hui, 2006). Fig 4.3, *Dongguan Xian Tu* 東莞縣圖, *Guangzhou Tu Zhi*, 廣州圖志. Fig 4.4, *Guang Dong Yu Di Quan Tu*, 廣東輿地全圖. In *Guangzhou Li Shi Di Tu Jing Cui* 廣州歷史地圖精粹, (Beijing: Zhongguo da bai ke quan shu chu ban she, 2003)

Policy Change

The “boat people,” who lived mainly on boats on the waters of the Pearl River estuary, emerged far before the Qing Dynasty. However, it was not until the middle of the Qing Dynasty that some of the “boat people” began the reclamation of the Sha Tian area for themselves and moved from their vessels to the new land. What happened during the middle of the Qing Dynasty and why did the “boat-people” chose Sha Tian for their land settlements? The article argues that three different policies contributed to this phenomenon.

The Great Clearance

The first relevant policy was the Great Clearance, which was a succession edict by Emperor Shunzhi and Kangxi from 1661 to 1663.¹ The coastal areas of Guangdong province had to be evacuated in order to defeat Zheng Chenggong and to sever his contact with the coastal population.² Until the evacuation was rescinded in 1669, millions of inhabitants were forced to move inland. Due to the Great Clearance, the boat people were prohibited from fishing and lost the basis of their income.

Nevertheless, the policy also gave the boat people an opportunity to reclaim land for themselves to some extent. Before the Great Clearance, during the late Ming Dynasty, there was already considerable land exploitation and reclamation in the coastal areas of the Pearl River estuary. However, with the national household registration system Hu(戶) and the well-developed clan system, the reclamation activities and the newly reclaimed land were mostly controlled by

¹Jiashi Wu, *Huangpu Gang Shi* 黃埔港史 (Beijing: Ren min jiao tong chu ban she, 1989). P78-79 cites: 東華錄, 順治十七年九月癸亥條、康熙十七年閏三月丙辰條, 光緒大清會典事例卷七七六, 第三頁.

²Jiashi Wu, *Huangpu Gang Shi* 黃埔港史 (Beijing: Ren min jiao tong chu ban she, 1989). P78-79 cites: 東華錄, 順治十七年九月癸亥條、康熙十七年閏三月丙辰條, 光緒大清會典事例 卷七七六, 第三頁.

the early settled families on the Pearl River Delta.¹ The boat people, who were at the bottom of the social pyramid and did not have a social identity, were hired or even exploited by the great clans.² Thus, they participated in the reclamation activities but had no right to use and own the reclaimed land. However, the Great Clearance somehow reduced the power of the clan forces. After 1669, the poor fishermen returned to the ocean and got the chance to settle on the sandy land of the Sha Tian area, which was far from the clan settlements.

Canton System

Together with the Great Clearance, there were also a series of sea bans to restrict maritime trade and coastal settlements. In 1684, after the destruction of the kingdom founded by Zheng Chenggong, the bans were lifted, and Kangxi issued an edict to re-establish marine trade.³ One year later, he announced the opening of four trading ports in Guangdong Province, Fujian Province, Zhejiang Province, and Jiangsu Province respectively. One of the customs for duty in Guangdong, The Huangpu port, was used to control western trade.⁴ In 1757, the Emperor Qianlong set up the Canton System to ensure that all the merchants conducted their commerce via the Huangpu port.⁵ As a result of the Canton System, the Huangpu port, which was in south-eastern Guangzhou and near the Pearl River estuary (where Sha Tian is located) experienced an unprecedented prosperity (Fig. 5). The Pearl River also became busier. Apart from the Portuguese and Spanish trade with the Chinese empire at Macau, the waterway of the Shiziyang Ocean became the sole maritime trade road connecting South China with the world trade network. At the same time, European trade kept penetrating the hinterlands of China resulting in the blossoming of the economic development of the Pearl River estuary. This resulted in favourable circumstances for the boat people to make a living in this area.

At that time, every foreign merchant ship was obliged to first anchor outside the Pearl River estuary and apply for entry into Huangpu for commerce (Fig. 6). The Qing government also regulated that there should be pilots to lead the foreign merchantmen into the Guangzhou River because of the complex waterways. In general, these pilots were the boat people who were more familiar with the river system.⁶ Hence, large numbers of boat people gathered in the area of the Pearl River estuary to provide this service.⁷

¹Zhiwei Liu, "地域空間中的國家秩序——珠江三角洲“沙田-民田”格局的形成 Di Yu Kong Jian Zhong De Guo Jia Zhi Xu — Zhujiang San Jiao Zhou 'Sha Tian — Min Tian' Ge Ju De Xing Cheng=Power Structure in Geographical Space — the Formation of the 'Sand Flat — Private Field' Pattern of the Pearl River Delta," *Qing Shi Yan Jiu* 2 (1999). P18

²In Chinese history, the social pyramid was divided into five classes. At the top was the scholars or the gentry. Then came the solid majority of farmers or peasant. Then came the artisans or skilled labor. Then, the merchants. Below the merchants, there were the actors on stage, the barbers giving haircuts and the boat people tossing over the water. The last group was called '賤民 lowly people', a term which implied that they were somehow not quite full-fledged citizens and were deprived of the usual rights of citizens for being somehow undeserving and unworthy of themselves.

³Tingyu Zhang 張廷玉, *Qing Chao Wen Xian Tong Kao* 清朝文獻通考(Shanghai: Shang wu yin shu guan 1936). Volume 33, 市糴. Notes: In the edict, the emperor said 'Now the whole country is unified, everywhere there is peace and quiet, Manchu-Han relations are fully integrated so I command you to go abroad and trade to show the populous and affluent nature of our rule. By imperial decree I open the seas to trade.' Which in Chinese is '今海內一統，寰宇寧謐，滿漢人民相同一體，令出洋貿易，以彰富庶之治，得旨開海貿易。'

⁴Tingnan Liang 梁廷柎, *Yi Fen Wen Ji* 夷氛聞記 vol. 1 (Beijing: Zhong hua shu ju, 1985). '又兩年，南洋開禁，置江、浙、閩、粵四海關。江之雲台山，浙之寧波，閩之廈門，粵之黃埔，並為市地，各設監督，司權政。'

⁵Wu. P79.

⁶Xiaohui Zhang, "Qing Dai Zhujiang San Jiao Zhou Dan Min Yan Jiu Lun Wen Ji," in *Di Er Jie Dan Min Wen Hua Xue Shu Yan Tao Hui* (Hong Kong: Hong Kong chu ban she, 2014). P41

⁷Yi zhao 趙翼 and Yuanzhi Yao 姚元之, "Guangdong Dan Chuan 廣東蜆船," in *Yan Bao Za Ji* 簪曝雜記, ed. Yi zhao and Yuanzhi Yao (Beijing: Zhong hua shu ju, 1982). P62



Figure 5. The Prosperity of Canton Port. Source: Dongguan Wen Hua Zhan Lan Guan, 東莞文化展覽館, Shui Yun Sha Tian 水韻沙田



Figure 6. Customs and Ports Near Sha Tian Area
Source: Illustrated by the author

Rights to live on the shore

Although the boat people who assembled in the Sha Tian area near the Pearl River estuary participated in the economics of the world trade network, they were not registered as part of the domestic population as mentioned earlier. They had no land and had spent generations wandering on the ocean. Settling on boats let them be long-term impact by storm and they were afforded little protection. Their place in the social hierarchy as “lowly people” deprived them of the usual rights of citizens and the status associated with the ownership of property. Therefore, it can be

seen that living on boats was a forced choice. If they had the right and the opportunity, some of the boat people would have preferred to live ashore.

The Emperor Yongzheng recognized that a large number of boat people had harsh living conditions. Thus, in 1729, he announced an edict that guaranteed the boat people's right to live on shore.¹ The edict stated that if the boat people had the ability to carry out reclamation activities and settle on the new lands, they should be assigned the registration of their households. Even though local abuse towards the boat people continued after the edict was published, the Qing government had begun to attach great importance to the population of boat people.² This law and the related policy became the foundation that promoted the change of their lifestyle.

To conclude, the Great Clearance weakened the previous clan system and provided a relatively moderate social environment for the boat people to reclaim their own land. The Canton System created an economic environment which attracted the boat people to gather around the Sha Tian area. The Emperor Yongzheng's edict for Dan households gave the boat people the political assurances required to obtain social identities and the ownership of space through the reclamation activities. Thus, the boat people who had already lived near Sha Tian began to move from their boats to the new reclaimed land during the Qing Dynasty.

The reclamation and production transformation

Apart from the policy influences, the geological conditions and the natural environment also provided the prerequisites for the boat people to live ashore. The formation of the sand fields required a combination of natural shaping forces and artificial encirclement. Generally speaking, there are five stages in this process which depended on the depth of the water and the quantity of sediment. They were classified as 'fish swimming,' 'scull-touching bottom,' 'crane-standing,' 'grass-spreading' and 'reclamation.' The sediment kept depositing and was piled onto the beach or formed into mud dikes.³ At the end of the third stage, the Tan (shoal, 坦) could be seen above the water at low tide and would be still submerged at high tide. By the middle of the Qing Dynasty, the shoals had already formed in the Sha Tian area around the She Xi Mountain.

¹ *Qing Shi Lu Guangdong Shi Liao*, ed. GuangDong Sheng Di Fang Shi Zhi Bian Wei Hui Ban Gong Shi (Guangzhou: Guang dong sheng di tu chu ban she, 1995). P314. '聞粵東地方，四民之外，另有壹種名為蛋民，即獠蠻之類，以船為家，以捕魚為業，通省河路俱有蛋船，生齒繁多，不可數計。粵民視蛋戶為卑賤之流，不容登岸居住。蛋民亦不敢與平民抗衡，畏威隱忍，局躡舟中，終年不獲安居之樂，深可憫惻。蛋戶本屬良民，無可輕賤擯棄之處。且彼輸納漁課與齊民壹體，安得因地積習強為區別，而使之飄蕩靡寧乎！著該督撫等轉飭有司通行曉諭：『凡無力之蛋戶聽其在船自便，不必強令登岸；如有能力建造房屋及搭棚棲身者，準其在近水村莊居住，與齊民壹同編列甲戶，以便稽查。勢豪土棍不得藉端欺凌驅逐，並令有司勸諭蛋民開墾荒地，播種力田，共為務本之人，以副朕壹視同仁之至意』。' 'People in Guangdong regard the Dan households as lowly and do not allow them to live on land. The Dan also dare not resist the impositions. Instead they huddle in their boats, denied a settled livelihood. Their plight is worth some sympathy. The Dan should belong to the category of orderly people not to be discriminated against. They pay the fish tax just like other subjects. However, local customs forcibly differentiate them and banish them to a livelihood without an anchor. I at this moment urge my officials to promote my edict. For those Dan without means, let them remain in their boats. If they have ways to build their shelter on land, they should be allowed to live in settlements beside the water and be assigned household registration like commoners for the convenience of supervision. Local strongmen must not find excuses to bully or repulse them. Local officials should persuade the Dan households to reclaim wasteland and be engaged in settled agriculture. This will be in accordance with my intention to treat them equally as subjects.'

² Helen F Siu and Liu Zhiwei, "Lineage, Market, Pirate, and Dan: Ethnicity in the Pearl River Delta of South China," in *Empire at the Margins: Culture, Ethnicity, and Frontier in Early Modern China*, ed. Helen F Siu (Hong Kong: Hong Kong University Press, 2006). P169.

³ The first stage is called the 'fish swimming' stage, when the depth of water was 2-3 m deep at low tide. The second stage is called the 'scull-touching bottom' stage, when water depth was 1-2 m. The third one is called the 'crane-standing' stage, when water further decreased to about 0.2-0.3 m. The fourth stage is called 'grass-spreading' stages, when most of the beaches were exposed at low tide and waterweeds start to grow. The last stage is reclamation stage, people begin to try to cultivate on the sand field.

The relationship to the environment

If only considering the geographical transition of the region of the Pearl River estuary, natural factors dominated the first three stages.¹ However, from the perspective of the entire Pearl River Basin, it can be said that human activities led to changes in the natural environment.

Since the early Ming Dynasty, people had reclaimed land on the river banks and the forest areas of the middle and upper reaches of the Pearl River. Although this provided more living space and economic benefits to the early settlers, the reclamation and cultivation led to destruction of the ecological environment on a large scale.² This included soil erosion that hastened sedimentation in the rivers and the extension of the coastline of the Pearl River estuary. This means that the early residents were altering the environment and struggling for more space from nature to improve their living conditions. As a consequence, they established a complex causal chain developing the Pearl River estuary with natural processes, and also provided the foundation for the eventual settlement of the boat people during the Qing Dynasty.³

Changes in Lifestyle and Production

As already mentioned, when the boat people assembled around the Sha Tian area, the shoal had nearly matured, and plants began to grow on it. The wild plants, including cypress, reeds, acanthus and other kinds of wetland plants not only accelerated sedimentation and formed wider shoals, but also provided production and building materials to the boat people.⁴ In fact, in many other places, wild aquatic plants and animals were considered to be survival resources, and further attracted people to settle down on the shore. Sha Tian was no exception and the Dongguan area had produced cyperus for a long time.⁵

Boat people began to collect the cyperus, dried them and produced mats, ropes and other items.⁶ There were large markets near Sha Tian during the middle and end of the Qing Dynasty.⁷ The collection, weaving, and sale of products formed a relatively complete production chain that provided a more stable source of income for the boat people than the fishing which was heavily dependent on the weather. Although fishing was still a primary source of income to the boat people, the emergence of new means of production enabled some of the boat people to build sheds on the embankments along the shoal. These simple buildings enhanced the reclaimed areas and provided a space for the weaving work, as well as a certain amount of protection for the fishing activities.

To summarize, a correlation existed between nature and human activities during the formation of the sand flats and the reclamation process in the Sha Tian area. The struggle of the early residents for more space from other parts of the Pearl River resulted in geographical changes of the Pearl River estuary and contributed to the formation of the shoal around the Sha Tian area. Meanwhile, the boat people in this area developed new modes of production to adapt to the natural environment and use natural resources, further changing the living and production space.

Creation of villages

Special building types

During the process of the creation of these villages, a sequence of different types of buildings appeared. The boat people in the Sha Tian area lived on the water as herdsmen with

¹Tan Dihua, Qing Dai Zhujiang San Jiao Zhou De Tian =Sandy Flat of Pearl River Delta in Qing Dynasty (Guangzhou: Guang dong ren min chu ban she, 1993). P6

²Weng.1056.

³Marks.

⁴Dihua. P6

⁵Dajun Qu 屈大均, *Guangdong Xin Yu* 廣東新語 (Beijing: Zhonghua shu ju, 1985).‘莞草出厚街桥头近海诸乡潮田’

⁶Dongguan Exhibition Center, *Shui Yun Dan Jia*. P58

⁷Hou Jie, which is a town Sha Tian besides to, had become one of the most important markets of Dongguan at that time.

no permanent housing. The boats were their houses and the places where they worked and played. In general, the boats were about five to six metres long, three metres wide and were divided into many compartments.¹ The bows were the workplace for pushing poles and fishing. The middle parts were the bedrooms and could also be used as water tanks and for food storage. The compartments in the rear were usually used as kitchens and could sometimes be used for poultry farming.² In some cases, the boat people would build simple sheds on shoals in the water bays for shelter and to carry out reclamation activities. These simple sheds gradually developed into a specific building type that marked the transition for the boat people from housing on boats to settling on land.

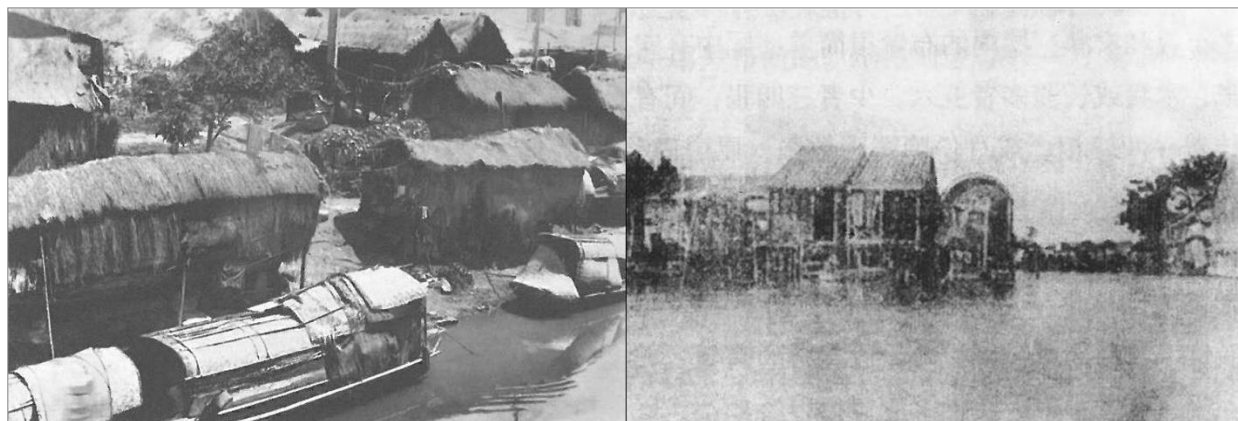


Figure 7. Simple sheds on the shoal along Pearl River Estuary – Early stage of Shui Lan. Source: Left: Dongguan Wen Hua Zhan Lan Guan, 東莞文化展覽館, Shui Yun Sha Tian 水韻沙田, Right: Ruiling Wu, 伍銳麟, Min Guo Guang Dong De Dan Min, Ren Li Che Fu He Cun Luo 民國廣州的疍民、人力車夫和村落 (Guangzhou: Guangdong ren min chu ban she, 2010)

The sheds built by boat people were closely related to their means of production and livelihood. The early-stage sheds known as Shui Lan (水欄) would be built on stilts on the water and are noted as characteristic of the boat people. This type of buildings was also recorded in the local chronicles: ‘Dan people use vessels as residential spaces and catch fish for a living. Some of them live in the sheds along the bank. This kind of shed is called Shuilan’.³

Shuilan used a simple structure of timber or bamboo, and the walls were made of planks of wood or even dried cypress mixed with mud. The roofs of these buildings were covered with leaves or thatch in a somewhat round or triangular shape (Fig. 7). As a temporary transition-type of housing, the inner space of Shuilan was relatively low and narrow and resembled boat cabins. Towards the middle and end of the Qing dynasty, fishing was still the primary economic activity, and most of the time, the boat people still worked and lived on board. Hence, the Shui Lan needed to connect conveniently to the vessels to provide easy access for the boat people. Thus, the buildings had to have at least one side facing the water. Underneath the Shuilan, several wooden pillars were hammered into the riverbed to support the structure.⁴ In the high tide, the wooden pillars submerged making the whole building like floating on the water as the boat.

¹Center. P18

²Hiroaki Kani, *A General Survey of the Boat People in Hong Kong*, vol. 5 (Southeast Asia Studies Section, New Asia Research Institute, Chinese University of Hong Kong, 1967). P24; Center. P18.

³“Wai Zhi,” in *Chong Zheng Dongguan Xian Zhi* 崇禎東莞縣志, ed. Erguo Zhang 張二果 (Dongguan: Dongguan shi ren min zheng fu ban gong shi, 1995). ‘疍戶皆以舟楫為宅，捕魚為業，或編篷瀕水而居，謂之水欄’

⁴Wong Waiking, *Tai O: Love Stories of the Fishing Village* (Wong Waiking, 2000).

At the same time, the vessels were still the most important production tools and the primary means of transportation, so the boat people would set aside waterways leading to the ocean for their ships as they reclaimed the land and constructed buildings. There were only dikes on the initial reclaimed land rather than fully formed land, so the buildings could only rely on embankments on one side, and another side was facing the waterway in the middle of different sand flats. In consequence, the entire settlement showed a linear distribution along the dike and facing the waterway where fishing boats could navigate and anchor by the Shuilan.

After a while, the boat people in the reclamation area built slightly larger Shuilan which are known as Liao(寮). In general, the Liao were built on the dikes where the previous sheds were, or just besides the sheds along the waterways (Fig. 8). On the side facing the water, there was a ladder to let people go down to the water and this also served as a pier to anchor vessels.¹



Figure 8. Liao Facing the Water. Source: Lie Shang, 尚列, *Cong Xiang Cun Dao Cheng Shi De Fei Yue—Guang Dong Shen Dong Guan Shi Sha Tian Zhen Jing Ji Yu She Hui Fa Zhan Diao Yan Bao Gao = Transformation from 'Rural' to 'Urban': A Research Report on Economic and Social Development of Shatian Town, Dongguan City, Guangdong Province 從鄉村到城市的飛躍——廣東省東莞市沙田鎮經濟與社會發展調查報告*. (Beijing: Zhongguo she hui ke xue chu ban sh, 2015.)

With further reclamation, part of the land began to be used for cultivation so fishing no longer dominated the economy. The boat people began to expand their settlements on the newly formed land. The original dikes during the reclamation became lanes in the villages, and the new lanes on both sides. In the end, linear villages were formed. Along the waterways, the Shuilan stood in the water followed by the larger Liao. There were two rows of new residential houses on both sides of a narrow road. Finally, there were the reclaimed farmlands (Fig. 9).

¹Shouqi Zhang 張壽祺, *Dan Jia Ren 疍家人* (Hong Kong: Zhong hua shu ju, 1991). P132.



Figure 9. Village formed on New Land--fabric of several long strips, Source :Left: Dongguan Wen Hua Zhan Lan Guan, 東莞文化展覽館, Shui Yun Sha Tian 水韻沙田. Right: Ruiling Wu, 伍銳麟, Min Guo Guang Dong De Dan Min, Ren Li Che Fu He Cun Luo 民國廣州的疍民、人力車夫和村落. (Guangzhou: Guangdong ren min chu ban she, 2010)

Village fabric related to reclamation

At this point, most of the boat people had completely moved out from the Shuilan and villages to towns or cities (Fig. 10). However, the linear layout along the waterway can still be identified in Sha Tian and is different from the typical Guangfu Grid-like villages which are compact settlement clusters nearby.

To understand the linear layout of these new land villages, it is suggested to examine Hou Jie, a town adjacent to Sha Tian and consisting of grid-like villages. This area was already settled far before the beginning of the reclamation activities in the Shan Tian area. In Hou Jie, most of the settlements distributed at the foot of the mountain were organized and dominated by a single surname family base and built according to Fengshui principles.

It was customary for the ancestral hall to occupy the most prominent place in the whole village and this would be one of the earliest buildings constructed.¹ Every single building of standard size and spatial layout was set to face the water pond or river. It can be said that the clan system determined the distribution of these villages (Fig. 11), as well as the agricultural activities and the reclamation activities. The clan organized and managed the development of the sand fields as well as the construction of dikes.

¹Ying Pan and Ying Shi, "Guang Fu Min Xi, Yue Hai Min Xi Shui Xiang Chuang Tong Ju Luo Xing Tai Bi Jiao (Shang) 廣府民系, 越海民系水鄉傳統聚落形態比較 (上) = the Comparison of Traditional Forms of Watery Settlement in Guangfu and Yuehai (Part One)," *Nong Ye Kao Gu*, no. 3 (2011). 244-46

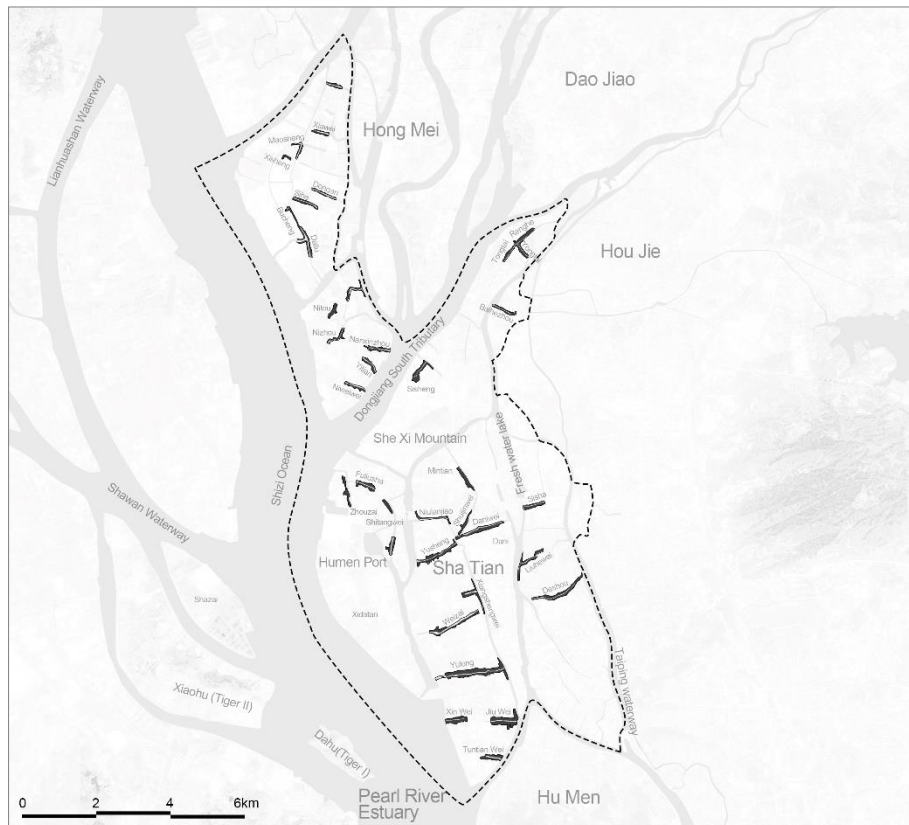


Figure 10. Current Linear Layout of New-Land Village in Sha Tian Town.
Source: Illustrated by the Author



Figure 11. Distribution of Guangfu Grid-like villages in Houjie Town.
Source: Illustrated by the Author

The reclamation activities based on clan system had robust economic support. Some measures such as dumping quantities of stones and planting reeds in the water to slow down the velocity of the water flow were widely used to promote the formation of the shoal and the deposition of sediments.¹

Thus, even the first three stages of the formation of the sand fields were dominated by human activity, which resulted in a more regular form of reclaimed land. As earlier migrants on the Pearl River delta, the clan acquired relatively rich land to settle down and build compact villages.² For the clan, the reclamation activities became an important way to expand production spaces and increase economic strength. Hence the reclamation areas provided agricultural land away from the village residential spaces.

In comparison with the clan-controlled reclamation activities, the formation of the reclaimed land in Sha Tian was natural and messy. Family lineage was not an established system for the boat people, so they did not have an operating system to control and plan the new land production systems. Meanwhile, they did not have enough capital to support the active reclamation process because of the harsh living conditions. The boat people were able to carry out small scale reclamation within their abilities. This meant that the formation of the new land relied heavily on the original river system and natural environment. The long wait for the natural land formation made the reclamation activity a process that was intermittent and lasted for several hundred years. Another difference was the purpose of reclamation. For the boat people, reclamation was for their essential living space on the land rather than to expand production. This was not simply the original intention of reclamation, but the lack of land for settling meant that the new villages of the boat people were formed during the process of reclamation. The linear residential spaces which were built along the dikes combined with the production area on the shoal as well as the water around it (Fig. 11).

To sum up, the reclamation activities in Sha Tian which were dominated by boat people, as well as individual families, depended primarily on the natural factors. The harsh living conditions of the boat people and their intentions for reclamation were the striving for their basic survival rights and space mixed the production and living spaces and also closely connected the reclamation activities to the formation of villages. In this context, the new villages in Sha Tian have the following characteristics.

The first is the requirement for waterways leading to the ocean or rivers in the villages. Secondly, the new villages had linear distribution with a fabric consisting of long strips of development. Finally, the residential buildings were built along the waterways with easy access to the water rather than in a cluster facing the water (Fig. 12).

Transformation in urbanization

Contemporarily, during the rapid urbanisation, Shatian became an important seaport town and the Humen port occupied a significant location facing the ocean and at the mouth of rivers. The waterways in the villages which were previously connected directly to the ocean could no longer flow straight into the sea. On the other hand, with the rapid development of advanced technology and industry, most of the boat people had given up their livelihood as fishermen to become industrial workers or individual businesspeople. Thus, the dependency on nature, river and water was weakened. Meanwhile, as a result of the increase in population and the conflict between the demands of the modern lifestyle and the traditional building types, the original one or two storey living spaces were no longer satisfactory. In this context, different forms of transformation occurred according to the location and the relationship with the urban area.

¹Weng. P1057

²Ying Shi and Ying Pan, "Guang Fu Min Xi, Yue Hai Min Xi Shui Xiang Chuang Tong Ju Luo Xing Tai Bi Jiao (Shang) 廣府民系, 越海民系水鄉傳統聚落形態比較 (下) = the Comparison of Traditional Forms of Watery Settlement in Guangfu and Yuehai (Part Two)," *Nong Ye Kao Gu*, no. 4 (2011).440-44

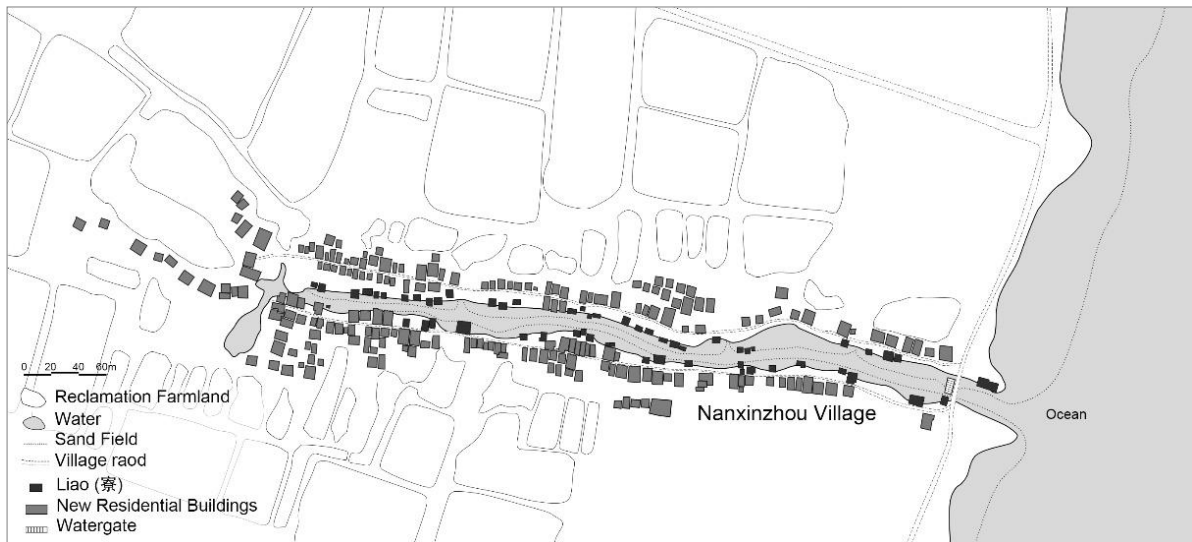


Figure 12. Typical Distribution of New-Land Village – Nanxinzhou Village.
Source: Illustrated by the Author



Figure 13. Current View of Nanxinzhou Village in Sha Tian
Source: Photo Taken by the Author

In the case of the villages that remained in the suburban area, most villagers moved out of the villages to resettlement housing in the urban area for a better quality of life. Hence, even though most of the Shuilan and brick residential buildings were vacant or abandoned, the general distribution of the settlement pattern only changed by a small extent. However, for those areas that had already become urban villages or were at the fringe of the urban area, the methods of expanding the living spaces were more complex. The road between the villages had replaced the waterways as the main mode of transportation. Despite rebuilt residential houses with more storeys facing the road, inhabitants previously living facing the river tried to reclaim the waterway independently for additional living spaces or small farmland (Fig. 14). Thus, small and fragmented reclaimed land began to expand into the water, finally blocking the broad waterways until they became narrow ditches with heavy pollution (Fig. 15). During the interview, the villagers explained how the current waterway which is not more than two metres wide used to be wide enough for a dragon boat over ten metres long to turn around smoothly. The previous waterways in the villages which connected to the sea as the main routes for fishing lost their convenient location as well as their function and became passive urban space with heavy pollution. It is ironic that the settlements on newly created land entirely reclaimed from water with the natural landscape of a water village gave up the river and water as the first step during urbanisation.



Figure 14. Distribution of New-Land Village after transformation during urbanisation
Source: Illustrated by the Author



Figure 15. Heavy pollution of current narrow waterways.
Source: Photograph by the Author

References

1. 梁廷枏, Tingnan Liang. *Yi Fen Wen Ji 夷氛闻记* Vol. 1, Beijing: Zhong hua shu ju, 1985.
2. 屈大均, Dajun Qu. *Guangdong Xin Yu 廣東新語*. Beijing: Zhonghua shu ju, 1985.
3. 張壽祺, Shouqi Zhang. *Dan Jia Ren 疍家人*. Hong Kong: Zhong hua shu ju, 1991.
4. 張廷玉, Tingyu Zhang. *Qing Chao Wen Xian Tong Kao 清朝文獻通考* Shanghai: Shang wu yin shu guan 1936.
5. 趙翼, Yi zhao, and Yuanzhi Yao 姚元之. "Guangdong Dan Chuan 廣東蜑船." Chap. 4 In *Yan Bao Za Ji 簷曝雜記*, edited by Yi zhao and Yuanzhi Yao. Beijing: Zhong hua shu ju, 1982.
6. Center, Dongguan Exhibition. *Shui Yun Dan Jia*.
7. Dihua, Tan. *Qing Dai Zhujiang San Jiao Zhou De Tian =Sandy Flat of Pearl River Delta in Qing Dynasty*. Guangzhou: Guang dong ren min chu ban she, 1993.
8. Kani, Hiroaki. *A General Survey of the Boat People in Hong Kong*. Vol. 5: Southeast Asia Studies Section, New Asia Research Institute, Chinese University of Hong Kong, 1967.
9. Liu, Zhiwei. "地域空間中的國家秩序——珠江三角洲“沙田-民田”格局的形成 Di Yu Kong Jian Zhong De Guo Jia Zhi Xu — Zhujiang San Jiao Zhou ‘Sha Tian — Min Tian’ Ge Ju De Xing Cheng=Power Structure in Geographical Space — the Formation of the ‘Sand Flat — Private Field’ Pattern of the Pearl River Delta
10. ." *Qing Shi Yan Jiu* 2 (1999): 14-24.

11. Marks, Robert. *Tigers, Rice, Silk, and Silt : Environment and Economy in Late Imperial South China*. Cambridge: Cambridge : Cambridge University Press, 1998.
12. Pan, Ying, and Ying Shi. "Guang Fu Min Xi, Yue Hai Min Xi Shui Xiang Chuang Tong Ju Luo Xing Tai Bi Jiao (Shang) 廣府民系, 越海民系水鄉傳統聚落形態比較 (上) = the Comparison of Traditional Forms of Watery Settlement in Guangfu and Yuehai (Part One)." *Nong Ye Kao Gu*, no. 3 (2011): 244-46.
13. *Qing Shi Lu Guangdong Shi Liao*. Edited by Guangdong Sheng Di Fang Shi Zhi Bian Wei Hui Ban Gong Shi Guangzhou: Guang dong sheng di tu chu ban she, 1995.
14. Shi, Ying, and Ying Pan. "Guang Fu Min Xi, Yue Hai Min Xi Shui Xiang Chuang Tong Ju Luo Xing Tai Bi Jiao (Shang) 廣府民系, 越海民系水鄉傳統聚落形態比較 (下) = the Comparison of Traditional Forms of Watery Settlement in Guangfu and Yuehai (Part Two)." *Nong Ye Kao Gu*, no. 4 (2011): 440-44.
15. Siu, Helen F, and Liu Zhiwei. "Lineage, Market, Pirate, and Dan: Ethnicity in the Pearl River Delta of South China." In *Empire at the Margins: Culture, Ethnicity, and Frontier in Early Modern China*, edited by Helen F Siu, 285-310. Hong Kong: Hong Kong University Press, 2006.
16. "Wai Zhi." Chap. 8 In *Chong Zheng Dongguan Xian Zhi 崇禎東莞縣志*, edited by Erguo Zhang 張二果. Dongguan: Dongguan shi ren min zheng fu ban gong shi, 1995.
17. Waiking, Wong. *Tai O: Love Stories of the Fishing Village*. Wong Waiking, 2000.
18. Weng, Qihao. "A Historical Perspective of River Basin Management in the Pearl River Delta of China." *Journal of Environmental Management* 85, no. 4 (2007): 1048-62.
19. Wu, Jiashi. *Huangpu Gang Shi 黃埔港史*. Beijing: Ren min jiao tong chu ban she, 1989.
20. Zhang, Xiaohui. "Qing Dai Zhujiang San Jiao Zhou Dan Min Yan Jiu Lun Wen Ji." In *Di Er Jie Dan Min Wen Hua Xue Shu Yan Tao Hui*: Hong Kong: Hong Kong chu ban she, 2014.