# THE TRANSFORMATION OF PORT AND CITY IN KAOHSIUNG

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**ABSTRACT:** Since 1990s, the Open Reform policy in China triggered a new international division of labor in Asia. Many labor-intensive plants in Taiwan moved to China. The decrease in freight and a large obsolete waterfront stimulated Kaohsiung to rethink how to improve this situation. The local government tried to motivate a new transformation of port and city by means of upgrading mega-infrastructure and propelling mega-waterfront projects. However, the urban recovery is not a simple task. These mega-projects cost huge investment, but unfortunately, they didn't achieve expected goals. It seems that there is still an important part need to be further examined. In this assay we try to figure out the historical transformation of port city in Kaohsiung and demonstrate that the lack of deep analyses between these mega-scale projects and original

urban fabric is the main reason resulting in the results less than expected. **KEYWORDS:** urbanization, globalization, urban design, rapid growth, transformation, design strategies, Kaohsiung, urban fabric

#### 1 HISTORICAL TRANSFORMATION

Taiwan is a small island located between China mainland and Japan, and therefore, the development of Kaohsiung Port, a port in South Taiwan, was deeply influenced by these two powers. (Photo 1)

# 1.1 An almost blank history to be a port (before 1864)

Daku was not a natural harbor in its early history. Because the harbor was small and shallow, it was just used as a temporary shelter against storm by fishing ships and junks. 'Defence' was the main goal for developing the Daku harbor from the late Ming to the Ching Dynasty. The concept of defence was reflected on the Kang-Xi king's formal map of Fengshan county, a place near the north of Daku harbor, drawn in 1719. There was no street in Daku harbor except Guho Xun and Daku Xun. "Xun" was the unit of troops in the Ching Dynasty. At that time, most units, scattering between Daku harbor and Feng-Shan County, gradually grew into small villages. (Photo 2)

#### 1.2 a treaty port (1860-1895)

Daku harbor became a treaty port during 1860- 1895 according to the Peking Treaty, which stimulate the development around harbor. Several trading streets were formed including Ling-a-Lioa, Chihou, and San-dai-tsu. The foreign firms and gathered at Shoa-chuan-tou and ships were anchored at Chihou for paying taxes. The flourishing economic activities motivated development of these waterfront areas. (Photo 3)

# 1.3 an export machine in Colonial Age (1895-1945)

Kaohsiung was built as an industrial port for invading South Asia by Japanese at the beginning of 20 century. The main reason for Japanese to choose Daku as the southern port of Taiwan is that Anping Harbor of Tainan was critically silted up and an alternative port was needed in order to export the abundant agricultural product from south Taiwan. Daku



**Photo 1** Location of Kaohsiung Source from: Google Map



**Photo 2** Feng-Shan county Source from: 《高雄地圖樣貌集》



Photo 3 Early development of Chihou street
Source from: 《高雄地圖樣貌集》

harbor with primary foundation in past three decades and relatively large hinterland was the best choice. The original plan consisted of three main phases in 1908, 1912, and 1937 to construct Daku. Although the third plan was halted because of the war with China and the war in the Pacific, the first two had made a significant development of Kaohsiung. Japan also amended "The Greater Daku City Plan" in 1908, and extended the plan three times in 1912, 1921, and 1936 in order to adjust the urban function to port. These plans totally showed Japanese ambitions to colonizing Southeast Asia. Japanese said "The road built in front of Train Station of Kaohsiung is the way to Malay Peninsula and Indonesia." Kaohsiung was shaped as a "modern" exporting machine by these plans, namely, as a constructing process of "modernity lacking subjectivation" (Hsia Chu-joe, 2000). (Figure 1)

Urban fabric was made as a nonstop production device: transportation and customs businesses were at Xinbing-ting, Jiejiang-ting, Shanxia-ting and Shou-ting near the port and stations; cold storages located within Chihou-ting, Xinbing-ting, Chou-ting, Ruchuan-ting and Yanchan-ting; rice, sugar and fertilizer businesses were distributed over transportation nodes, as Xinbing-ting, Chou-ting. Ruchuan-ting was also stationed in by large-scale iron and steel affairs with other small factories set on the margin (Chang Wen-Shan, 2002); and finally, these items were shipped out nonstop through Kaohsiung port. Residential districts were highly intermixed with industrial districts in Kaohsiung.

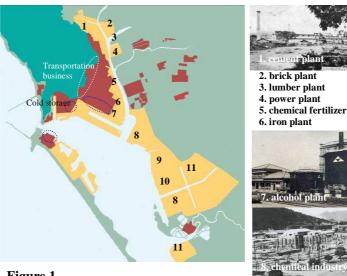
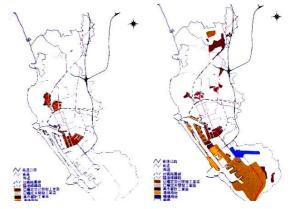


Figure 1
The Structure of Colonial Landscape in Kaohsiung as a "Modern Machine"

#### 1.4 A non-stop manufactory in authoritarianism age

The National Party (Kuo-Ming-Don, KMT) took over Taiwan Island after War World II. The administration of Kaohsiung was divided into port and city in order to further concentrate local powers on state. The roles of port and city were directly decided by central government. The KMT government totally acceding to Japanese point of view continually regarded Kaohsiung as an industrial center in the following economic plans. Industry Parks and Export Processing Zones were set up in order to fit into the end branch of international division of labor, which successfully propelled rapid economic development. The population had grown from 240 thousands in 1949 to 1.35 million in 1987. (Figure 2)



9. aluminum plant

11. magnesium plant

10, engine plant

**Figure 2** The locations of industrial parks and port in 1955 and 199 Source from:《高雄市港埠發展史》

Basically, the urban landscape of Kaohsiung in this period was also mainly shaped by industrial policy of central government. The large-size factories acceding from Japan still worked after war including cement factory, aluminium plant, magnesium plant, iron plant, chemical industry and some light industries beside waterfront. Moreover, following the first export processing zones of Taiwan being set up at Kaohsiung, there were more and more industrial parks being set up in the 1970s. Because the space was highly industrialized, there was no area for urbanism in waterfront except quays, warehouses and heavy-industrial instruments. The relationship between port, city and civilians had become more and more weak. The series policies culminated in the policy, "let a living room like a factory", which let even private dwellings become parts of industrial production.

### 2 URBAN FABRIC IN THE PRESENT

The urban fabric of Kaohsiung showed in following characters under the effect of undue industrialization:

The first, urban expansion mainly followed establishment of industrial park. In most cases, residential areas developed around industrial park, (Figure 3) which formed an isolated region (white circle in Figure 5). There is a weak relationship of urbanism between these regions and downtown.

The second, a large numbers of worker immigration were attracted into theses areas, but corresponding public space was seriously crowded out of urban area by industry. It resulted in a very high density of population and a very low ratio of public service space.

The third, a lots of informal economic activities emerged in urban streets in order to satisfy the lack of public service space. Finally these kind of informal activities usually could legally occupy that space.

This developing way of urban fabric is quiet different from other cities in Taiwan. (Figure 4) The blue circle is with a very high density of population and a very low ratio of public service space and the white circles are usually with worse environmental polutions. The relationships between the blue circle and white circles are very weak in urbanism but very intensive in logistics. Namely, from the perspective of logistics, the white circles can be viewed as extensions of port.

It can partly explain why Kaohsiung MRT system met serious crisis of bankrupt. The train stops inside the blue circle are with a daily amount of passenger over 5000. It shows that there is a weak relationship between downtown and the industrial parks outside the blue circle. Lack of daily commuting passengers is a serious problem for the operation of Kaohsiung MRT.

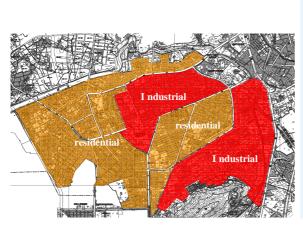


Figure 3
The intensive relationship of industrial park and residential areas just like an isolated unite.



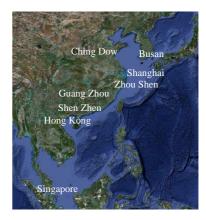


**Figure 4**The relationship between urban fabric and Kaohsiung MRT Source from: Kaohsiung MRT Co.

# 3 CHALLENGE IN THE FUTURE: finding a new urban fabric

Since 1990s, the Open Reform policy in China triggered a new international division of labor in Asia. Many labor-intensive plants in Taiwan moved to China. "Made in Taiwan" was replaced by "Made in

China", which directly caused the decrease of freight in Kaohsiung. According to the world ranking of transshipment of container, the transshipment capacity of Kaohsiung was the fourth port in the world in 2000. And then, the ranking of Kaohsiung sharply dropped down to the twelfth in 2008 and keep going down [2009/02/09 Economic News, Taiwan]. How does Kaohsiung confront with this change? The obsolete industrial areas, especially those beside port, were viewed as crucial roles for the transformation of Kaohsiung by authority. (Photo 4) Among these projects, Kaohsiung Multi-Functional Commerce & Trade Park (KMFCT Park), including cultural trade and logistic districts, with 5.87 km2 was viewed as a flagship-plan to convert the traditional industrial image of Kaohsiung. International architects provided their new ideas of new urban forms trying to transform this industrial port city, but the attempt doesn't success yet. The practical exploitation is less than 10%. From the perspective of urban fabric, there is still a large part of this project which accede the original developing concept. The separation of port and city remains, not to mention to create a new urban fabric. It seems that we still need more research to explore the original urban fabric before finding a new form of urban fabric.



**Photo 4** The relationship of Asian port cities: There are eight ports, being one of top ten transshipment ports in the world, locate in Eastern Asia

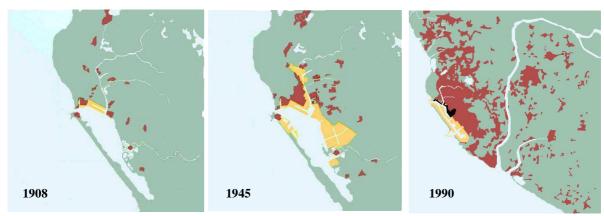


Figure 5 The historical transformation between port and city

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- [9] Table of Chinese translation:

鳳山縣	Fengshan county	安平港	Anping Harbor	旗後	Chihou	旗後町	Chihou-ting
岐后汛	Guho Xun	新濱町	Xinbing-ting	三塊厝	San-dai-tsu	湊町	Chou-ting
打鼓汛	Daku Xun	堀江町	Jiejiang-ting	哨船頭	Shoa-chuan-tou	入船町	Ruchuan-ting
壽町	Shou-ting	山下町	Shanxia-ting	鹽埕町	Yanchan-ting	苓仔寮	Ling-a-Lioa