

Study on Industrial Heritage of Kowloon East and Its Potential for Public Art/ Urban Design

(九龍東工業傳統及公共藝術/城市設計潛力研究)

Energizing Kowloon East Office (EKEO), Development Bureau, HKSAR Government

Final Report

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Background of Study on Industrial Heritage of Kowloon East and Its Potential for Public Art/ Urban Design

1. This consultancy study is a response to the rapid urban transformation process of Kwun Tong and Kowloon Bay Business Areas (KT/ KBBA). The study pays tributes to the four planning elements of the Policy Initiatives as consolidated in the Kowloon East (KE) Conceptual Master Plan (version 3.0): Connectivity, Branding, Design and Diversity.
2. To meet societal needs, KE has gradually transformed from a manufacturing base to a service-oriented cluster in the last decade. Many old factory buildings as well as some unique architectural features are gone due to the continuous redevelopment and conversion of existing industrial premises to office space. Therefore, there are imminent needs to capture and document both the architecture and history of the industrial heritage for the memory and enrichment of our humanistic and cultural landscape for the younger and future generations, and to come up with strategies to incorporate these collective treasures of Hong Kong into the process of urban place making and transformation through public art and urban design.
3. The objectives of this consultancy service are:
 - i. To record and document the meaningful stories behind the industrial premises, entrepreneurs, factory workers, and the neighbourhood and consolidate the findings;
 - ii. To record and document the unique architectural features of the industrial premises and consolidate findings;
 - iii. To make recommendations on the transformation of the industrial heritage into unique elements in urban design, themes for public art, etc.
 - iv. To develop strategies in the form of heritage trail and advocacy statement to help implement the urban design recommendations with stakeholders.
4. There are 6 tasks involved in this consultancy study: **Task 1** – To analyse the origin, evolution and development of manufacturing industries and industrial buildings in KT/ KBBA; **Task 2** – Collection and categorization of information including industrial buildings with special architectural and historical interests, case studies of workers, entrepreneurs, the factory and industrial undertakings and their machines, products and brands that can tell legendary stories about the history and industrial heritage of KT/ KBBA; **Task 3** – Develop a set of design principles and guidelines for creating a socio-cultural and visual identity that can turn the industrial heritage into elements for public art, public design, streetscape and street furniture that would help branding KT/KBBA; **Task 4** – Develop presentation drawings for KT/ KBBA and prepare miniature models proposals of five selected associated elements of streetscape or street furniture; **Task 5** – Propose an Industrial Heritage Trail that can link up spots of

interests; and **Task 6** – Develop an advocacy statement to encourage and guide land owners and developers in KT/KBBA to take industrial heritage of their sites into account in the process of wholesale conversion or redevelopment of the industrial buildings and participate in the Industrial Heritage Trail scheme.

5. Although KE in the context of the Energizing Kowloon East Initiatives includes Kai Tak Development Area as well as Kwun Tong and Kowloon Bay Business Area, this study only focuses on Kwun Tong and Kowloon Bay Business Areas, whilst taking into account the Government's planning and development intentions on Kai Tak.



Figure 1: Extent of study area

6. In the course of this study, which was carried out from mid-December 2012 to July 2014, 8 reports have been submitted, i.e. Inception report, Research Report on History and Heritage of KT/KBBA, Report on collection and categorization of data/ information, Report on Industrial Heritage and Design Identity of KT/KBBA, Report on Proposed Industrial Heritage Trail (later renamed as, and hereafter 'Report on Discovery Map'), Advocacy Statement and Guidelines for Private Development, Miniature Models Proposal, and Executive Summary and Final Report.
7. The **inception report** delineates the understanding of the study team towards the Study brief and set out background information that were useful for the study. The **Research Report on History and Heritage of KT/KBBA** examines the history of KT/KBBA from the industrial, historical, architectural and land-use planning perspectives and provided an overview of the development of

KT/KBBA in the past since WWII; the **Report on collection and categorization of data/ information** presents a compilation of data and information collected during the course of study, which included information collected from desktop research, interviews, drawings of the buildings, maps, photos, etc.; the **Report on Industrial Heritage and Design Identity of KT/KBBA** summarizes and distills the findings of the preceding reports and identify the unique characters of KT/KBBA, so to propose a design guidelines that could set the parameters for future transformation of the public space of the district; the **Report on Discovery Map** identifies the spots of interest in KT/KBBA that has a history or story to tell, which include former locations of the famous brands or companies originates in Kwun Tong and Kowloon Bay, the factory buildings with architectural interests, the spots of cultural and other interests that highlights the transformation of the area, etc.; the **Advocacy Statement and Guidelines for Private Development** is a pamphlet in a public digestible form for the property owners or land developers in KT/KBBA to show them how they could help preserve the industrial heritage in the area; the **Miniature Models Proposal** proposes some urban design elements in the area that could serve as anchors for future urban transformation; and this **Final Report** and its **Executive Summary** summarize all findings for this study and present recommendations and issues for further studies.

The History and Development of Kowloon East

Definition of Heritage and industrial heritage in Kowloon East

1. The concept of 'heritage' may refer to something tangible (such as relics, artefacts, monuments, etc) or intangible (such as oral history, stories, practices, etc) inherited from the past that shapes and gives life to the present and the future. It implies continuity (both temporal and spatial) that helps stakeholders of the present relate to the past as well as the future.
2. 'Industrial heritage' refers to both the tangible and intangible remains of the development of the industries and its supporting environment. It is an aspect of the cultural heritage of the place. In the UK where modern industry first developed, there are some of the world's oldest remains of the Industrial Revolution and the term is often connected with the affiliated museums or historic districts.

History of Kwun Tong before 1950s

3. The Chinese name of Kwun Tong (觀塘) could be dated back to the Southern Song Dynasty. The area was one of the four biggest salt-beds in Dongguan Province. The Salt industry disappeared in 17th century when Qing government retreat all costal residents inland 250 km from the sea to prevent the relief provision to Zheng Cheng-gong, and was not revived even after the expansion of boundary. Kwun Tong was a dumping bay for refuses from 1930s to the beginning of WWII.

Overall Development of Kwun Tong from 1950s to present

Industrial Development

4. The first and second phase reclamation were completed in 1961. 154 acres of land were dedicated to industrial use. It was then the largest reclamation project happened in Hong Kong.
5. The land was restricted to be auctioned at comparatively large size (10,000 sq ft). The land price increased as the infrastructure improved. It was HK\$5.60 per sq ft in the 1950s, HK\$28.8 per sq ft in the 1960s and increased to HK\$270.00 per sq ft in the 1980s.
6. The number of workers and factories also grew many folds in the course of several decades. In 1961, there were about 100 factories and 15,000 workers, and in 1970, there were 1,066 factories and 83,813 workers. In 1980, Kwun Tong accommodated some 180,000 workers in the district.
7. Since the opening up of Mainland China during the 1980s and the low labour cost in Southern China, Hong Kong industrialists have moved northwards, leaving vacant industrial spaces to be redeveloped. Kwun Tong's importance as a manufacturing base in Hong Kong has significantly diminished today. According to Census data of 2011, Kwun Tong has 11,326 workers out of the total 142,973 manufacturing working population in Hong Kong, ranking only fifth among all districts.

Residential Development

8. The majority of Hong Kong's industry in the 1970's was labour-intensive. Government housing was constructed with a purpose. In 1961, according to a document, "about 20,000 people are now living in the area, mainly people whose houses or huts were cleared under the development scheme. The Housing Society lets the houses it builds at moderately low rents on a non-profit making basis. Applications for housing are only received from people with a monthly salary of between HK\$300 and 800." (Ma, 1964: 41).
9. The Government provided housing in the Kwun Tong area to support the industrial development. In 1959, The Garden Estate and the Kwun Tong Resettlement Estate were completed and for the next 30 years, twenty-six public housings were built in Kwun Tong, which stretched from Kowloon Bay in the west to Yau Tong in the east. Some of these housings have gone through redevelopment (e.g. Sau Mau Ping Estate has been refurbished in 2004) to relieve the social problems arising from the old building design.
10. Population underwent drastic increase from nearly 1,000 people in 1947 to around 700,000 in 1984. The population dropped in 2005 to 563,000 but has risen back to 622,152 in 2011 as the second most densely populated area. The tenure ownership in Kwun Tong has also increased since 1986 and is now occupied with 28% of Kwun Tong population resided in private housing in 2013.

Commercial Development

11. Demand for commodities stemmed from industrial development. In 1960, the

Government planned a 14-acre commercial zone in the area. The shopping experience further improved with the opening of Telford Garden in Kowloon Bay in 1980 and APM in 2005.

Infrastructure Development

12. Only since 1960, the electricity, water and telephone line provision were improved steadily by the laying of underground cable, water pipes and telephone lines.
13. Although KE benefited from the proximity to the Kai Tak Airport, which started serving commercial passengers since 1936, local transportation network was inadequate. The first bus line 11B extended its service to cover Kwun Tong area as late as 1958. After 1969, there were several routes of minibuses added. The Ngau Tau Kok Pier opened in 1953 and was moved to Hoi Bun Road in 1960, renamed as Kwun Tong Pier, serving as one of the major transport for workers.
14. In 1979, the Mass Transit Railway reached Kwun Tong. East Harbour Tunnel and Phase I of the Kwun Tong Bypass opened in 1989, with Phases II and III of the Bypass opened two years later.
15. Major events in KE include two landslides which occurred in Sau Mau Ping in 1972 and 1976, with the former killing 71 people and destroying 78 wooden huts. In 2003, the SARS outbreak in Amoy Garden of Ngau Tau Kok forced people for evacuation and quarantine.

Environmental Development

16. Kwun Tong has a record of land, air and noise pollution. The ‘Flambeau Action’ in 1970s reflected the problem of garbage accumulation in Kwun Tong; a report in 1991 revealed that Kwun Tong has a higher concentration of nitrogen dioxide and was suffering from acid rain; in 1999, noise pollution was also reported causing insomnia and mental unrest amongst the residents.

Socio-political Development

17. The planning KTIA (Kwun Tong Industrial Area) has included social services but they were insufficient and religious and voluntary bodies played an active role in filling the gaps. With mounting development and social problems within the district, Kwun Tong was the first to set up a “District Advisory Board” in 1979.
18. Since the SARS outbreak in 2003, many artists and cultural organizations, attracted by the high ceiling and low rent, had already been using the industrial units as studio, rehearsal and even performing space.
19. In 2006, there were about 60 arts and cultural organizations in KITA, and 422 creative industries companies, increasing to 507 in 2010.

Summary and Future Challenges

20. The development of Kwun Tong can be called a ‘re-active development’ – meaning development was triggered by problems instead of foresight. Kwun

Tong was among the first planned town centres, which should include considerations on economic, labour and transportation issues in the process of planning. However, the early stage of its development failed to foresee the needs of the people and social facilities/infrastructures were provided reactively as can be seen in the provision of electricity and water supply in the industrial area, or the provision of transport services during the 1950's.

21. The situation was improved since the establishment of the district council in 1981. Kwun Tong was the first district in Hong Kong to enjoy the benefits of the new political system. With sub-division of the district into smaller administrative areas and the establishment of working groups within the district council, public opinions could be reflected to the district councillors for the formulation of more concrete plans.
22. The importance of KTIA is its role as one of the first industrial bases in Hong Kong in her golden age of manufacturing industries. About 18% of industrial output was produced by the district, illustrating its importance to the overall economy of Hong Kong during the 1980s. However, with the relocation of production activities to the Mainland since the 1990s, quite a number of factories in the district have been left vacant and given way to new commercial development.
23. The 'Revitalization policy of industrial buildings' (活化工廈政策) announced in 2010 was generally welcome by the factory owners and the business sectors while existing tenants in the area worry that rising land and rental values will eventually drive them out and destroy their business and community networks built up over the last decades.

Land Use Planning Development of Kwun Tong and Kowloon Bay from 1950-present

24. Kwun Tong was an industrial town planned in the early 1950s. Reclamation started at the eastern end near the former oil depot (now Laguna City) extending westwards towards Kowloon Bay and was carried out in three phases between 1954 and 1962. Now KTIA covers an area of approximately 70.7 hectares of land and is bounded by Kwun Tong Road to the north, King Yip Street to the east, Hoi Bun Road to the south and Shun Yip Street to the west.

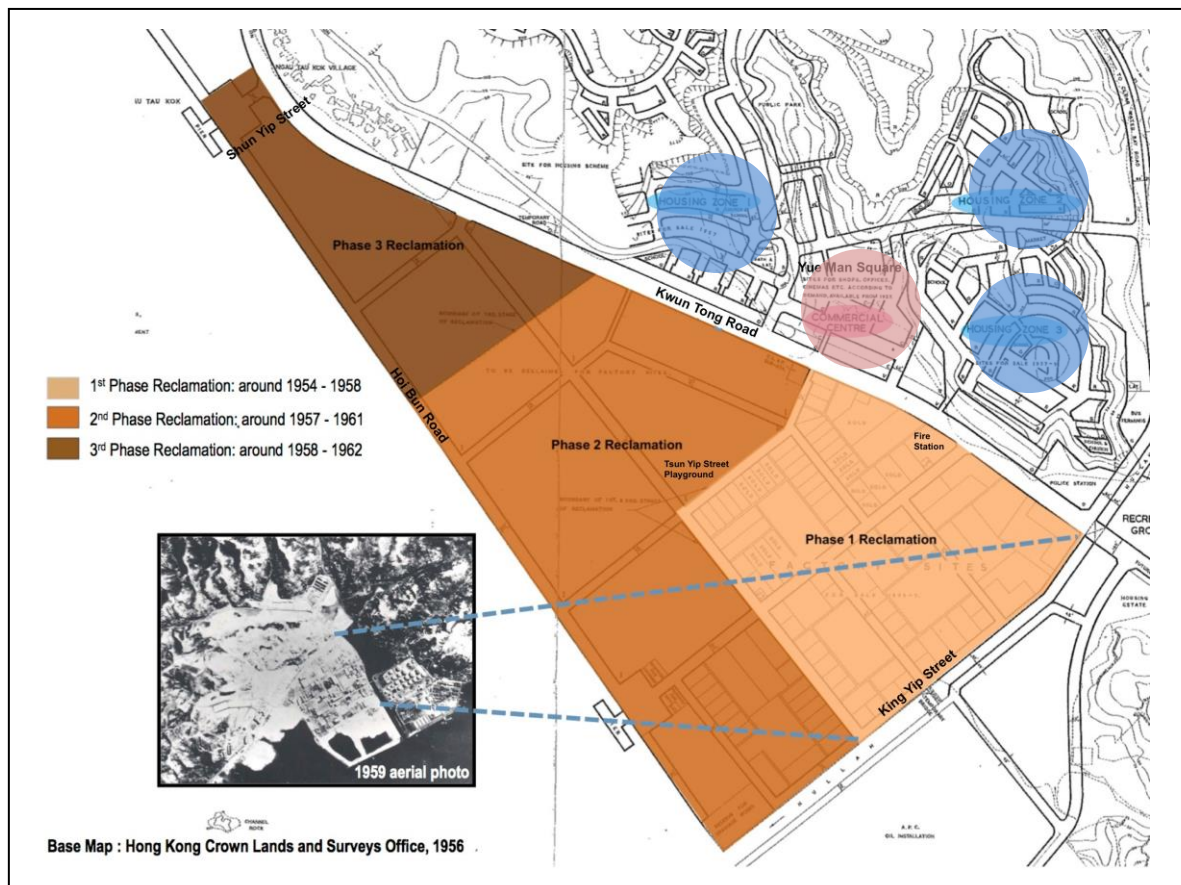


Figure 2: Reclamation Phasing of KTIA

25. Within KTIA, 43.73 hectares of land were originally zoned “Industrial”(“I”) on the Outline Zoning Plan (OZP) as industrial sites while seven sites with a land area of only 1.19 hectares were zoned “Commercial” (“C”) planned to be local shopping/business centres. All “C” sites were either located at road junctions or transport interchanges.
26. The road network adopted an iron grid road pattern. The street names in Chinese like Shing Yip Street, Tsun Yip Street, Lai Yip Street, Wai Yip Street, Tai Yip Street, Hoi Yuen Road and Hung To Road etc., carry meanings of creating wealth, prosperity and good business . Wai Yip Street was subsequently added to connect KT and KBBA. There were barges along the seawall serving the waterfront sites.

27. Back alleys are one of the characteristics of KT industrial area. The back alley network, together with the building setback of 10 feet on ground floor with a headroom clearance of 15 feet required under lease, provided the load/unloading space for daily operations, also for pedestrians who prefer less crowded walkways.

Selling the Land Lots and early establishments in KTIA

28. In order to encourage application for the industrial sites from small-scale factories, the Government allowed payment by instalments for the site. The policy was also reflected in the small lot design layouts amongst some bigger lots. As the reclamation progressed, the size of the subdivided land lots had become significantly smaller to better suit the needs.
29. Originally the industrial sites were restricted to certain manufacturing industries, but the practice ceased in 1957 except some offensive industries and industries with enormous smoke emission which were still excluded.

Early Stage of Redevelopment

30. When the number of workers and establishment were at their peak in 1980s, redevelopment sets in KTIA within Stage 1 reclamation area, sites were converted to medium-rise flatted factory, for example, East Sun Cotton Mill site in 1974, Wah Kiu Cotton Mill in 1976, Nanyang Cotton Mill in 1986 and Yuen Tung Dyeing Factory in 1970s.

Licensed Factory Canteens

31. As more women and older people joined the workforce in factories, home lunch became difficult and workers began to buy lunch from illegal street vendors or ordered delivery. However, problem of hygiene and a food poisoning incident prompted the Government to formulate the policy of licensed factory canteens in 1980.
32. There were many restrictions to factory canteens: Canteens on ground floor were not allowed to have direct access to the main road, no advertising signs were allowed, and they could only serve the factory employees of that particular building.

Vacancy rates of Flatted Factory Buildings

33. The shrinking of the manufacturing sector in KTIA was reflected in the rising vacancy rate of private flatted factory buildings. It was generally true that the higher the vacancy rate, the lower were the rental and price levels of the premises.

Transformation

34. The Government in 1989 introduced Industrial/Office (I/O) buildings, which is a new land use where offices ancillary to industrial use are allowed within the “I” zones. A guideline for submitting planning application for new office buildings in these areas were also issued in 1990.

35. In 2001, the Government introduced another new land use for industrial areas in Hong Kong and the “I” sites in KTIA was rezoned “OU (Business)” use in the same year. It allowed new office buildings to be built within such zones, and conversions were also allowed.
36. Currently, there are more than 20 sites in KTIA that are under reconstruction or planning to be redeveloped. Redevelopment is also easier to materialize when the land lots are held under single or less fragmented land ownership.
37. The ‘Revitalization of Industrial Buildings’ Policy in 2010 allows landowners to convert and upgrade their industrial buildings into commercial uses for the lifetime of the buildings without paying any premium. As for February 2013, there were 12 applications in KT/KBBA on special waiver exemptions.

New and Diversified Uses within Industrial Buildings and in KTIA

38. Apart from arts and cultural activities inside the industrial buildings, recent new comers to KTIA include recreational uses such as indoor football training field, indoor baseball and softball batting centres.
39. Rooftop farming also proves to be another viable new use for industrial buildings. It is envisaged that these alternative uses will continue to proliferate in the many industrial buildings under fragmented ownership where wholesale conversion or redevelopment is unlikely to occur in the near future.

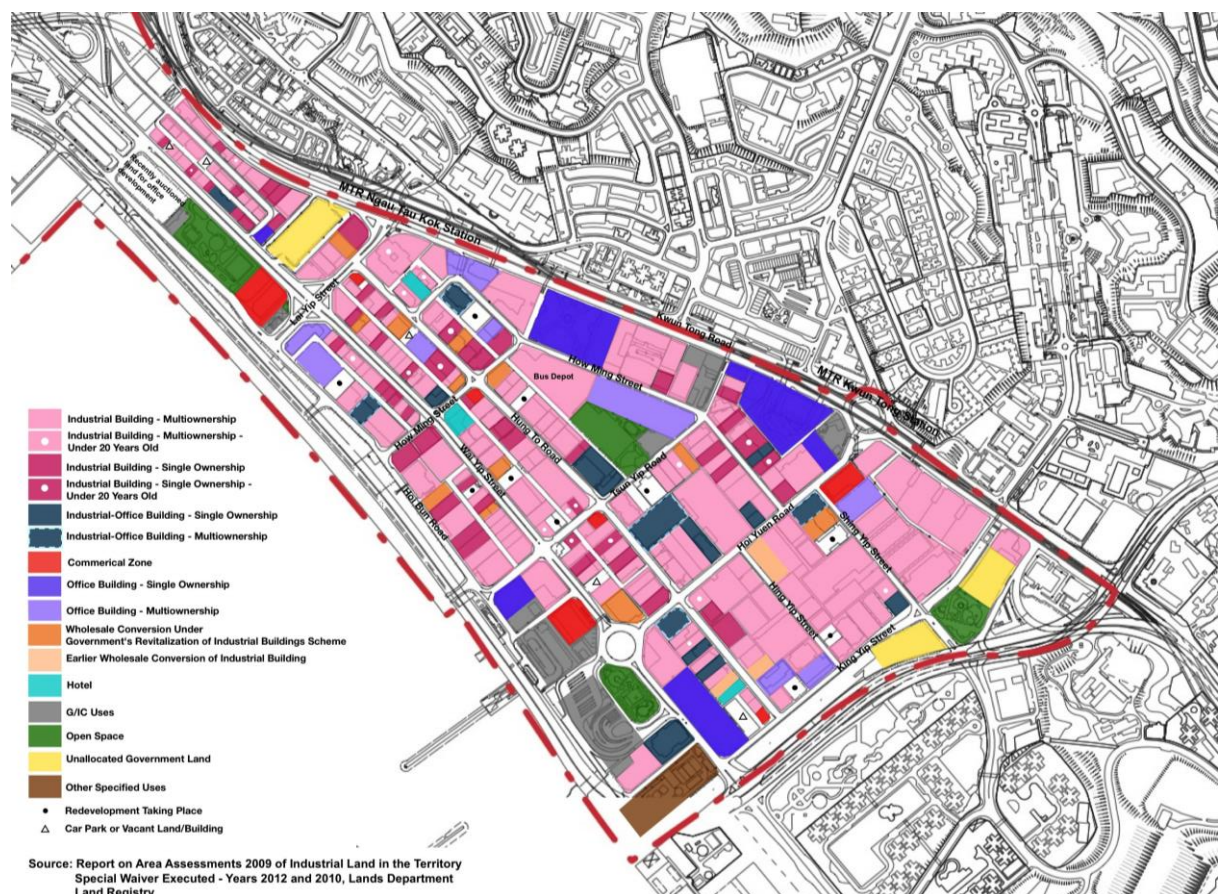


Figure 3: Current Land Use and Land Ownership Pattern In KTIA

Life Cycle of Industrial Sites

40. This study examined the life cycle of the selected industrial sites, and the life cycle should be cross-referenced with the evolution of architectural building typologies. There were two types of buildings in KTIA, i.e. custom-made buildings and flatted factory buildings. The former were mostly in the Phase 1 reclamation and area and had been developed into flatted factories or office buildings. Majority of the latter is under multiple ownerships, which means redevelopment or conversion is unlikely to happen in the near future.

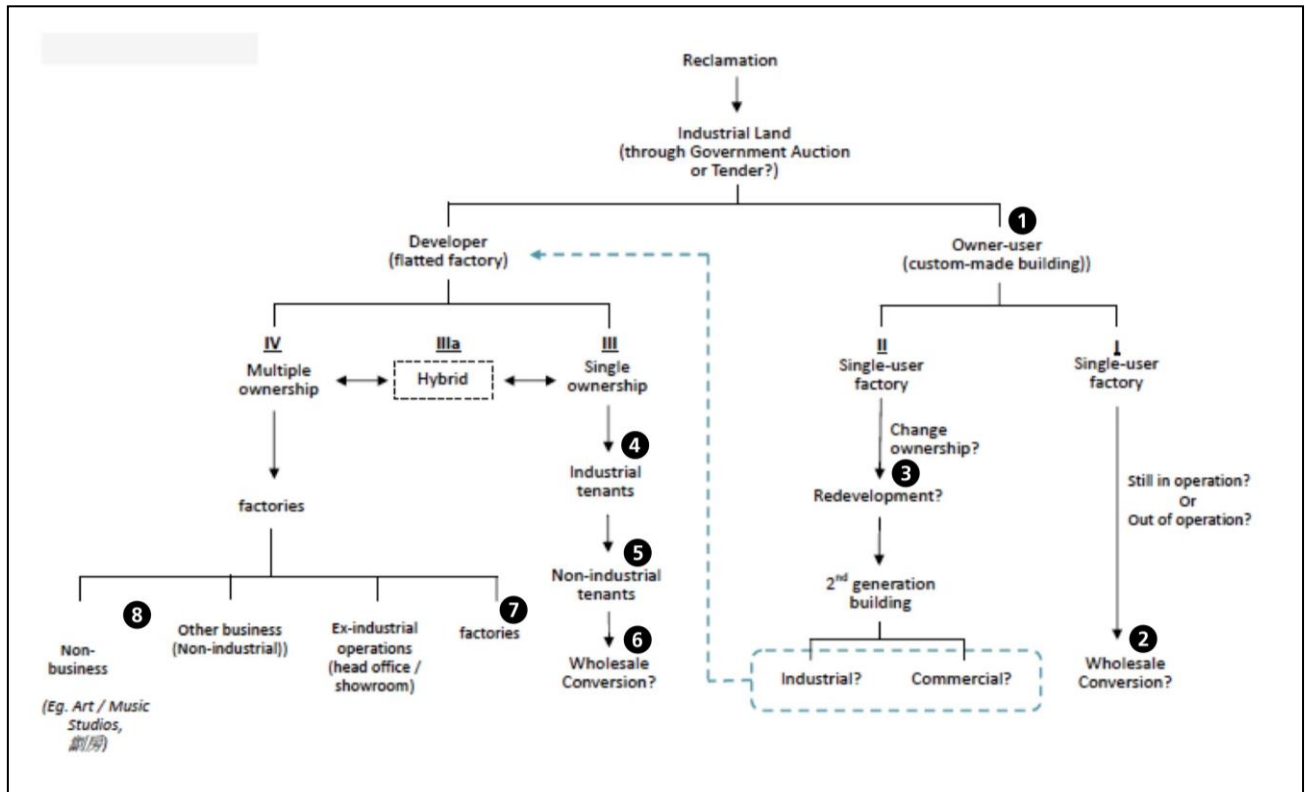


Figure 4: Life Cycle of Industrial Sites in KTIA

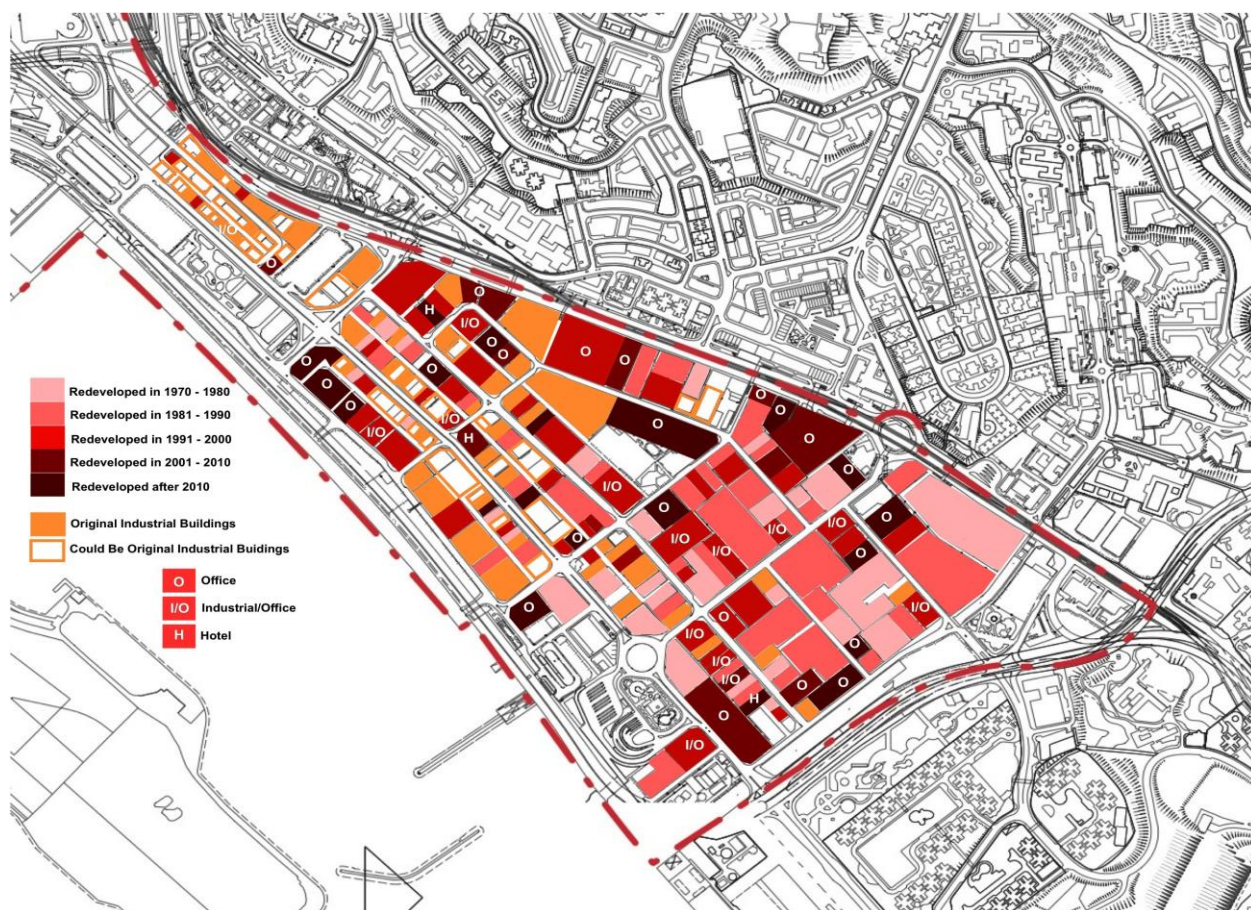


Figure 5: Life Cycle of Industrial Sites in KTIA

Kowloon Bay Industrial Area

41. Planned in the 1970s, Kowloon Bay Industrial Area (KBIA) was KTIA's extension to meet the increasing demand for industrial floor space in the urban area at that time. However, by the time the industrial buildings were being built, the manufacturing sector in Hong Kong had already passed its heyday, a total of 35 land lots were sold by the Government by 1981. The Government sold the second batch of industrial sites between 1981 and 1983.
42. There were originally five "C" sites planned in KBIA providing a range of commercial facilities for the area. The industrial sites comprising 22 hectares of land area were rezoned to "Other Specified Uses" annotated "Business" ("OU(B)") use in 2001.
43. In accordance with modern planning standards and design guidelines for industrial development, there are no back alleys. Each lot has at least two street frontages and the building is equipped with loading/unloading facilities. Provision of open space in KBIA is also significantly higher than in KTIA.
44. The lot sizes in KBIA are significantly bigger than those located in area of Phases 2 and 3 reclamation in KTIA. Subject to the airport height restrictions at that time, the building mass in KBIA is bulky.

45. For the industrial buildings that were built in the mid and late 1980s, majority of them are flatted factory buildings under fragmented ownership. Yip On Factory Estate on Wang Hoi Road is the only government-owned factory estate left in East Kowloon.

Development of Industrial Buildings, Communal/ Open Areas and Lanes in Kwun Tong and Kowloon Bay from 1950 – present

46. Industrial buildings aim for high efficiency in terms of land use, planning and building design. Landowners tend to maximize the permitted gross floor area in the lot. Therefore the building types are informed by building regulations at the time.
47. The building types can be classified as Gallery Block, Machine as building, L-Block, M-Block & S-Block (Simple Extrusion, Staggered Tower, Podium Tower), Face-lifting.

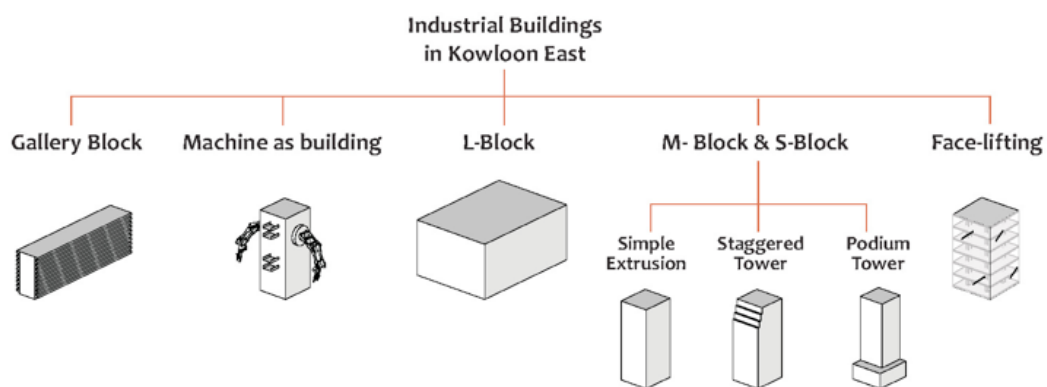


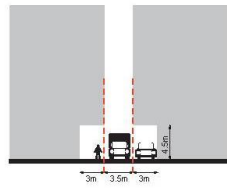
Figure 6: Building typologies in Kowloon East

48. Gallery Block adopts a similar design as the resettlement block and caters for small-scale business that needs only a generic space. Examples are Kwun Tong Factory Estate (1966), Kowloon Bay Factory Estate (1975) and Yip On Factory Estate (1985) is still in operation. Characteristics of Gallery Block are laterally deep access balconies, stacking up of identical floor plates, coloured walls enhanced with dimensionality of the building.
49. L-Block, also means mega blocks, is the results of a relatively less stringent requirements on light and natural ventilation in industrial buildings, when compared to residential buildings. Units in L-Blocks are packed tightly together leaving light wells for the purpose of light and ventilation. Characteristics of L-Block are: large floor plate area (>4,000 sq.m.), massive volume and flatted factories for small to medium sized factories.
50. M & S Block, meaning medium and small blocks, remains the majority of the industrial building in KE. Due to the limited land area, the building developments follow strictly the statutory requirements and lead to the emergence of Simple Extrusion, Staggered Tower in 1955 and Podium Tower in 1962.

51. Machine as Building refers purpose-built factory buildings to fit their specific function. Typical examples are Kowloon Flour Mill and 167-169 Hoi Bun Road.
52. Face-lifting refers to those industrial buildings that were built with maximum permitted site coverage but would like to change the building use. In order to facilitate the provisions of curtain walls on existing buildings, the Authority set out guidelines on the exemption from the restriction of curtain walls applications.
53. Architectural significance of industrial buildings in KE can be summarized into Horizontality & Verticality; Spontaneous Order and Billboard Signage.
54. The urban space in KE is mostly linear, narrow back lanes, main streets and green corridors, promenades, nullahs and all linear lines connecting the open spaces such as parks.

Public Urban Space
Linear Urban Space

BACK LANES



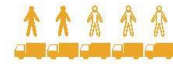
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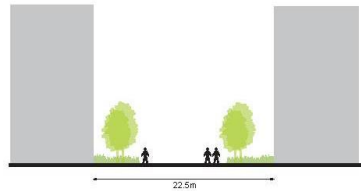
MAIN STREETS



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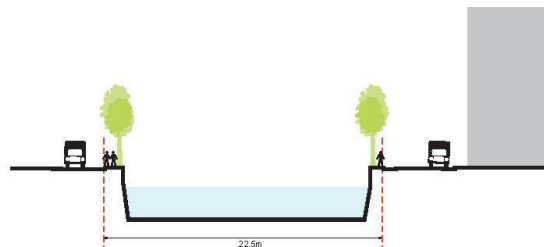
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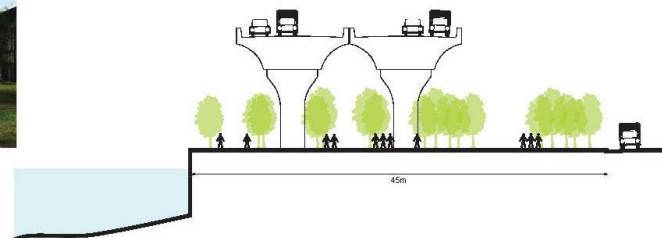
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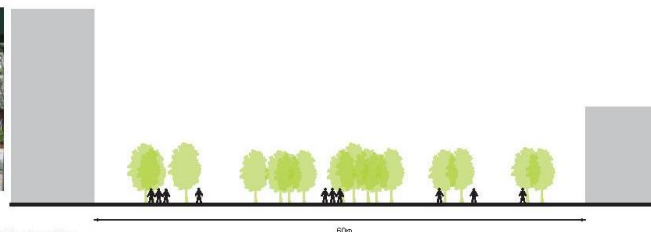
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Figure 9 - Linear Urban Spaces in Kwun Tong and Kowloon Bay

Figure 7: Linear Urban Spaces in Kwun Tong and Kowloon Bay

The Origin, Evolution and Development of the Industries

Development of the Industries can be summarized into 4 stages:

Beginning 1950-65

55. To facilitate the change of Hong Kong from its entrepot trade into an industrial city, the Government decided in the mid-1950s to provide properly planned districts for the local industries to grow.
56. Reclamation in Kowloon East and the planning of the Kwun Tong area was the first and largest reclamation project for industrial sites in Hong Kong, which was carried out in stages over a period of ten years producing a total area of 641 acres.
57. Sites were sold by auction first in large parcels ranging from 9,000 to 200,000 sq. ft. and later reduced to smaller parcels because of bigger demand.
58. Offensive trades and industries were excluded from the area and waterfront sites were reserved for godowns and industries that required sea access.
59. Among the first movers and pioneers in the Kwun Tong Industrial Area were cotton mills, thermal flasks, electrical appliances and plastic factories. Many of the first generation factories were purpose-built for their specific production. Some of them have been demolished or altered and not many of them are preserved intact at present.
60. Notable establishments in this period are:
 - Cotton Mills - Nanyang Cotton Mill; East Sun Cotton Mill
 - Thermal Flask - Hip Shing Thermal Flask Factory
 - Electrical Appliances - Din Wai Electrical Mfg. Company
 - Paint - China Paint Mfg Co. (1932); National Lacquer and Paint Products Company Ltd. (Camel Paint)
 - Textiles and Clothing - Union (V-Tex) Shirt Factory Ltd.; Li
 - Wah Man Shirt Factory (Now Crocodile Garment Ltd.)
 - Plastics and Toy - Plastic Manufacturing Corporation Ltd.; Toyland Rubber Mfg. Factory
 - Food and Beverage - Kowloon Flour Mills

Heyday 1965-85

61. The number of factories and workers in Kwun Tong increased drastically, with the former from around 800 to 7,000 and the latter, about 70,000 to about 200,000.
62. Textiles and clothing was still the dominant sector, hiring about 40% of the total work force in the area by 1980s, followed by rubber and plastics in the second place. Notable metalware and food and beverage factories also moved to Kwun Tong during this period. It was during the late 1960s that electronics became an important industry with the number of factories doubled within a decade.

63. With the rapid growth of industries in the area, shortage of labour became acute and competition to recruit workers was keen. Factory owners had to provide various benefits and attractions in order to keep their workers – some installed air conditioning in their premises, while it was common to provide canteens or organized catering for lunch as well as tours and picnics as bonus.
64. Notable establishments in this period are:
 - Textiles and Clothing- Union Button Factory Ltd.; Hoover Button Factory Ltd.; Hong Kong International Knitwear Mfg. Ltd.; Crystal Knitters Ltd.; South; Asia Knitting Factory Ltd.; South Ocean Towel Factory (1984) Ltd.; Texwood International Ltd. ; Glorious Sun Enterprises Ltd.
 - Metalware - Meyer Manufacturing Co. Ltd.; Kin Hip Metal & Plastic Mfg. Ltd.
 - Food and Beverage - Seven-up Beverages Limited; Schweppes Beverages Ltd;
 - Hong Kong Soya Bean Products Co. Ltd. (later Vitasoy); Hong Kong Yakult Co. Ltd.
 - Electronics - Sanden Electronics Equipment Ltd; Musical Electronics Ltd; Keystone Electronics Co. Ltd.; Wong's Industrial (Holdings) Ltd

Transformation 1985-2000

65. The opening of the Mainland in the early 1980s provided a golden opportunity for Hong Kong Industrialists to relocate labour-intensive production to the Pearl River Delta with cheaper land and lower wages. Many of the first generation owners of Kwun Tong factories began to move their factories across the border to the north while the premises in Kwun Tong were converted to headquarters and showrooms to support a world-wide business. It was during this period that developers began to cast their eyes in Kwun Tong for vacant sites for redevelopment.
66. As Hong Kong suffered from the Asian financial crisis in 1998, rental levels dropped to below HK\$5 per sq. ft. by 2000 and many non-manufacturing sectors like advertising and design services began to move into Kwun Tong. The varied tenant mix has transformed the industrial buildings in the postmodern era of the city.
67. The following are examples of industries from Kwun Tong that have set up operation in the Mainland and worldwide during this period while some industries moved into Kwun Tong at the same time:
 - Textiles and Clothing - Crystal Knitters Ltd_ in Dongguan; South Asia Knitting Factory Ltd. in Fujian; South Ocean Towel Factory (1984) Ltd. in Dongguan
 - Electrical Appliances and Electronics - Musical Electronics Ltd. in Zhongshan; Wong's Industrial (Holdings) Ltd. in Shenzhen

- Plastics and Rubberware - New Bright Industrial Co. Ltd. in Shenzhen; Kader Industrial Co. Ltd. moved to Kowloon Bay in early 1990s
- Lift - Chevalier International Holdings Ltd. moved to Kwun Tong in 1980
- Metalware - Meyer Manufacturing Co. Ltd. ; Kin Hip Metal & Plastic Mfg. Ltd. in Shenzhen
- Food and Beverage - Seven-up and Schweppes Beverages Ltd. Hong Kong Soya Bean Products Co. Ltd. (later Vitasoy) and Hong Kong Yakult Co. Ltd. moved out in 1980s-90s

Post 2000

68. Since 2000, manufacturing industries has reduced its share of GDP and employment in Hong Kong, and many factory owners have downsized their local operation as well as spatial usage. However, that does not mean these enterprises have lost their edge in terms of manufacturing business in the region or the world.
69. A number of industries originally located in Kwun Tong have now grown into important global businesses employing tens of thousands of workers in over 30 countries, while there are still a few industries operating in their original purpose-built factories.
70. Since these companies have no financial burden with their own properties, they are not keen to dispose of or convert their building premises under the new climate of redevelopment and would most likely hold on to their original state as anchors of industrial heritage in the district.
71. On the other hand, since the introduction of I/O buildings in 1989, and the subsequent introduction of OU(B) buildings in 2001 that encouraged wholesale conversion and redevelopment, Kwun Tong has gradually become a vibrant commercial area with new skyscrapers. Many large corporations were attracted to Kwun Tong, majority of which purchased or rented directly from the developers. For example, Standard Chartered Bank started to use Standard Chartered Tower in 1998 as its headquarters for back office services; Manulife settled in Manulife Financial Centre in 2008; and AXA and AIA became the major tenants of Landmark East in 2010.
72. There were also industrialists redeveloping their properties into office buildings and hotels. For example, Kin Hip was one of the early movers to redevelop its factory into office building (today's Kinnox Centre); and New Bright is planning to redevelop Spectrum Tower and Paul Y Centre into office and hotels, etc.
73. Meanwhile, since many cultural and creative industry companies and entrepreneurs have moved into Kwun Tong, they have built up a network and culture in the area that might also persist along with transformation and changes in the neighbourhood.

The Collection of Data

74. The data collection report consolidates and presents the data and information collected for this study from historical, architectural and other archival perspectives.
75. The history database presents the information on manufacturing industries from 1950 to the present, collected from various sources including but not limited to the Year Books produced by *Wah Kiu Yat Pao*, *Kwun Tong Today*, the *Hong Kong Annual reports*, *Tai Kung Po*, etc., categorized by names of factories, types of industries, year of establishment, address, etc.

項數	廠名	類型	地址			資料來源	年份	
			地區	街道	大廈		起	迄
著名品牌								
1	國民製煉漆油有限公司	製漆油料業	觀塘	興業街1號		華僑香港年鑑	1960	1994
2	梁蘇記遮廠	遮帽雨衣業	旺角	彌敦道634號A		華僑香港年鑑	1960	
3	中華製漆有限公司	製漆油料業	觀塘	觀塘道416號		華僑香港年鑑	1965	1994
4	伊人免熨恤(總廠)/伊人恤衫廠(總廠)	製衣服裝業/恤衫內衣業	觀塘	駿業街56號		華僑香港年鑑	1965	1975
5	利華民有限公司/利華民有限公司(工廠)	恤衫內衣業/製衣服裝業	觀塘	開源道79號		華僑香港年鑑	1965	1980
6	七喜飲品有限公司	汽水雪糕業	觀塘	鴻圖道1號		華僑香港年鑑	1970	1990
7	九龍麵粉廠企業有限公司	粉麵製品業/飲料食品業	觀塘	海濱道161號		華僑香港年鑑/網上版黃頁	1970	2012
8	玉泉飲料有限公司	汽水雪糕業	觀塘	鴻圖道1號		華僑香港年鑑	1970	1985
9	香港益力多乳品有限公司	汽水雪糕業/飲料食品業	觀塘	偉業街161號		華僑香港年鑑	1970	1994
10	香港荳品有限公司	汽水雪糕業	觀塘	開源道52-54號		華僑香港年鑑	1970	1985
11	鱈魚恤有限公司	製衣服裝業	觀塘	開源道79號		華僑香港年鑑	1975	1985
12	德士活製衣有限公司	製衣服裝業/織造分組 (Woven garments)	觀塘	偉業街144號	德士活工業中心	華僑香港年鑑/香港工業總會會員名錄	1980	2005
13	楊協成企業有限公司	汽水雪糕業/飲料食品業	觀塘	鴻圖道1號		華僑香港年鑑	1985	1994
14	唯一冷熱水壺廠	冷熱水瓶業/家庭用品-批發及製造	九龍灣	宏基道1號/宏基街3	新駱駝大廈	華僑香港年鑑/網上版黃頁	1990	2012

項數	廠名	類型	地址			資料來源	年份	
			地區	街道	大廈		起	迄
28	曼佳美(香港)照明電氣設備有限公司	電氣及光學製品分組	觀塘	巧明街100號	城東誌二期	香港工業總會會員名錄 2012-13	2012	
設廠35年或以上								
29	大豐染織廠/大豐染織廠有限公司	紡織染布業/絲綢顧綉業	觀塘	觀塘道地段2731號/偉業街320地段/偉業街156號/鴻圖道26號		華僑香港年鑑	1960	1994
30	中元塑膠廠/中元塑膠廠有限公司	塑膠膠木業/塑膠製品業	觀塘	巧明街117號		華僑香港年鑑	1960	1994
31	南洋紗廠有限公司	紡織染布業/絲綢顧綉業	觀塘	觀塘地段69號/開源道55號/鴻圖道57號		華僑香港年鑑	1960	1994
32	淘然橡膠工業社/淘然橡膠製品廠	橡膠製品業/橡膠輕膠業/橡膠製品	觀塘	牛頭角工廠區9號/創業街31號	永華工業大廈	華僑香港年鑑	1960	2012
33	中美五金塑膠製造廠/中美五金塑膠製造廠有限公司/中美實業有限公司??	五金製品業	觀塘	興業街15至17號/觀塘道418號A/興業街15號	中美中心	華僑香港年鑑/香港工業總會會員名錄	1965	1990
34	福昌製造廠有限公司/福昌製造廠/福昌製帽廠有限公司/福昌製衣廠有限公司	遮帽雨衣業/恤衫內衣業/製衣服裝業/織造分組 (Woven garments)	觀塘	開源道63號	福昌大廈	華僑香港年鑑/香港工業總會會員名錄 2005-2006	1965	2005
35	建業五金塑膠廠/建業五金塑膠廠有限公司	塑膠膠木業/塑膠製品業/五金製品業/香港塑膠業協會	觀塘	成業街30號/鴻圖道9號	建業中心	華僑香港年鑑/香港工業總會會員名錄	1965	2012
36	合眾鈕廠/合眾鈕廠有限公司	鈕扣鍊帶業/香港塑膠業協會	觀塘	開源道72-80號/巧明街99號	萬宜大廈/巧明工廠大廈	華僑香港年鑑	1970	2012
37	南益織造有限公司	毛織製品業	觀塘	巧明街94號/鴻圖道21號/巧明街108號	南益集團大廈	華僑香港年鑑/香港工業總會會員名錄	1970	2012

項數	廠名	類型	地址			資料來源	年份	
			地區	街道	大廈		起	迄
38	豪華鈕廠/豪華鈕廠有限公司	鈕扣製造業/鈕扣鍊帶業/香港塑膠業協會	觀塘	偉業街209至211號/開源道62號/創業街25號	富合大廈/駱駝漆大廈/創富中心	華僑香港年鑑/香港工業總會會員名錄	1970	2012
39	聯僑企業有限公司	塑膠製品業/香港塑膠業協會	觀塘	勵業街11號		華僑香港年鑑/香港工業總會會員名錄/網上版黃頁	1970	2012
40	安生五金製造廠有限公司	五金製品業	觀塘	偉業街165號A/偉業街151號/巧明街95號/興業街23號	世達中心/寶業大廈	華僑香港年鑑/網上版黃頁	1975	2012
41	宏發製罐廠/宏發五金製品廠有限公司	印花製罐業/罐一批發及製造	觀塘	偉業街118號/興業街21號/興業街23號	寶業大廈	華僑香港年鑑/網上版黃頁	1975	2012
42	美亞製造廠有限公司	電器製造業/五金製品業/金屬及機械分組	觀塘	觀塘道380至382號		華僑香港年鑑/香港工業總會會員名錄	1975	2012
43	美科有限公司	電子工程業/香港電子業總會	觀塘	鴻圖道38號/宏照道39號	企業廣場三期	華僑香港年鑑/香港工業總會會員名錄	1975	2012
44	新電電子工業/新電電子工業公司	電子工程業/機械器材及用品	觀塘	巧明街95號/偉業街221號	夏利文工業大廈/美德工業大廈	華僑香港年鑑/網上版黃頁	1975	2012
45	嘉美實業公司製品廠/嘉美實業有限公司	塑膠製品業/塑膠玩具	觀塘	巧明街95號/觀塘道404號	時運工業大廈	華僑香港年鑑	1975	2012
設廠24-35年								
46	力行塑膠廠/力行實業有限公司	塑膠膠木業/塑膠製品業	觀塘	牛頭角財利船廠對面/巧明街111號/巧明街107號		華僑香港年鑑	1960	1990
47	堅強橡膠製品廠	橡膠製品業/橡膠乳膠業	觀塘	觀塘道LZ3077地段/鴻圖道18號		華僑香港年鑑	1960	1985
48	義生實業有限公司	塑膠膠木業/鈕扣製造業/裝飾製品業	觀塘	牛頭角3020號地段/巧明街111至113號		華僑香港年鑑	1960	1990

項數	廠名	類型	地址			資料來源	年份	
			地區	街道	大廈		起	迄
49	田氏實業有限公司	塑膠膠木業/塑膠製品業	觀塘	巧明街94至96號	田氏實業大廈	華僑香港年鑑	1965	1994
50	利華製衣織染廠有限公司	恤衫內衣業/紡織染布業/製衣服裝業	觀塘	敬業街69至71號		華僑香港年鑑	1965	1994
51	香港鋼窗製造有限公司	建築材料業/建築器材業	觀塘	觀塘地段3125號/偉業街207號/鴻圖道40號		華僑香港年鑑	1965	1990
52	電威電器製品廠/電威電器製造廠有限公司	電器製造業	觀塘	開源道49號		華僑香港年鑑	1965	1990
53	經緯毛紡廠有限公司	毛織製品業/紡織染布業	觀塘	成業街7號		華僑香港年鑑	1965	1994
54	中南布廠有限公司	紡織染布業/絲綢顧綉業	觀塘	成業街18號/觀塘道414號	新怡生工業大廈/中南工商中心	華僑香港年鑑	1970	1994
55	仁興機器廠有限公司	機器鑄造業/機器工程業	觀塘	駿業街43至45號		華僑香港年鑑	1970	1994
56	友聯織造廠/友聯製造廠有限公司	織造製品業/毛織製品業/製衣服裝業	觀塘	巧明街112號	友聯大廈	華僑香港年鑑	1970	1994
57	偉新有限公司	毛織製品業/針織成衣及其他針織成品成組	觀塘	鴻圖道53號A/鴻圖道44-46號	世紀工商中心	華僑香港年鑑/香港工業總會會員名錄	1970	2005
58	先時毛衫織造廠/先時實業製造有限公司/先時織造實業有限公司	毛織製品業	觀塘	創業街15至17號	南豐工業大廈	華僑香港年鑑	1970	1994
59	南洋電綫公司/南洋電綫有限公司	電器製造業	觀塘	偉業街169號		華僑香港年鑑	1970	1994
60	美昌塑膠廠/美昌珠鈕廠有限公司/美昌塑膠廠有限公司	塑膠製品業	牛頭角	牛頭角道7號	開大工業大廈	華僑香港年鑑	1970	1994
61	發達機器廠	機器鑄造業	觀塘	觀塘道376號	發達工業大廈	華僑香港年鑑	1970	1994

項數	廠名	類型	地址			資料來源	年份	
			地區	街道	大廈		起	迄
62	瑞安鐵造廠	恤衫內衣業/鐵造製品業	觀塘	偉業街134號	港聯工業大廈	華僑香港年鑑	1970	1994
63	萬國鋼鐵器具公司	裝飾傢具業/五金製品業	觀塘	偉業街	觀塘工廠大廈1座	華僑香港年鑑	1970	1994
64	綠盒實業有限公司	塑膠製品業	觀塘	觀塘道368號		華僑香港年鑑	1970	1994
65	廣聯泰製衣廠	恤衫內衣業/製衣服裝業	觀塘	駿業街52號/駿業街54至56號	廣聯泰工業大廈	華僑香港年鑑	1970	1994
66	毅誠塑膠製品廠/毅誠塑膠製品有限公司	塑膠製品業	觀塘	巧明街95號/偉業街128號		華僑香港年鑑	1970	1994
67	藝星手套廠	毛織製品業/手套製造業	觀塘	創業街31號		華僑香港年鑑	1975	1994
68	旭日製衣廠/旭日製衣廠(香港)有限公司	織造分組	九龍灣	偉業街185-187號/巧明街97號/宏遠街1號	恆生工業大廈/旭日工業大廈/一號九龍	華僑香港年鑑/香港工業總會會員名錄 2012-13	1980	2012
69	玫瑰針織有限公司/玫瑰針織(亞洲)有限公司	毛織針織業	觀塘	大業街2號/觀塘道350號/宏照道39號	麥士威工業大廈/企業廣場三期	華僑香港年鑑/香港工業總會會員名錄	1980	2012
70	金益膠袋製品廠	塑膠製品業	觀塘	恆安街29號/鴻圖道63至65號	鴻運工業大廈	華僑香港年鑑/網上版黃頁	1980	2012
71	金樂水松公司/金樂水松五金公司	水松軟木業/水松及水松製品	觀塘	翠屏道村/成業街15-17號	成運工業大廈	華僑香港年鑑/網上版黃頁	1980	2012

項數	廠名	類型	地址			資料來源	年份	
			地區	街道	大廈		起	迄
72	美好電子有限公司	電子工程業/香港電子業總會	觀塘	鴻圖道35號/駿業街58號/巧明街95號	宏開工業大廈/世達中心	華僑香港年鑑/香港工業總會會員名錄	1980	2012
73	新興眼鏡製造廠/新興眼鏡製造有限公司	光學製品業/電氣及光學製品分組	觀塘	成業街27號/觀塘道418號	觀塘工業中心第一期/日昇中心/創紀之城五期	華僑香港年鑑/香港工業總會會員名錄	1980	2012
74	寶利金屬製品廠有限公司	五金製品業/金屬及機械分組	觀塘	開源道77號	業發工業大廈	華僑香港年鑑/香港工業總會會員名錄	1985	2012
75	文明電子有限公司	電子工程業/香港電子業總會	觀塘	興業街16至18號/興業街23號	美興工業大廈/寶業大廈	華僑香港年鑑/香港工業總會會員名錄	1985	2012
76	王氏工業(集團)有限公司	電子工程業/香港電子業總會	觀塘	偉業街180號A	王氏工業中心	華僑香港年鑑/香港工業總會會員名錄	1985	2012
77	利得(香港)五金製品廠有限公司	五金製品業	觀塘	鴻圖道55號	幸運工業大廈	華僑香港年鑑/網上版黃頁	1985	2012
78	協成皮具錶帶廠/協成皮錶帶廠有限公司	鐘錶產品業/香港鐘表工業協會	觀塘	觀塘道472-484號	觀塘工業中心第一期	華僑香港年鑑/香港工業總會會員名錄	1985	2012
79	華新行(塑膠原料)有限公司	塑膠製品業/塑膠原料 Plastic Raw Materials	觀塘	巧明街117號/常悅道9號	企業廣場	華僑香港年鑑/網上版黃頁	1985	2012
80	海外電鍍機械原料行/海外電鍍機械原料行有限公司	電鍍工程業/電鍍器材及用品	觀塘	觀塘道404號	時運工業大廈	華僑香港年鑑/網上版黃頁	1985	2012
81	晶苑鐵造廠有限公司	織造製品業/針織成衣及其他針織成品成組	觀塘	巧明街71號	晶苑工業大廈	華僑香港年鑑/香港工業總會會員名錄	1985	2012

Figure 8: The History Database, a selection of 81 factories with historical weights

76. Because of the vast numbers of factories involved and the incompleteness of records, only a selected list of 81 factories with stronger representation of industry types, longer period of existence, more well-known branding with historical interest are presented. A number of case studies are further selected from the list for more information collection and analyses.
77. For the architecture database, a comprehensive mapping of the study area in terms of Outline Zoning Plan, use, year of establishment, number of storeys and typology is presented, followed by a selected list of Industrial buildings with architectural interest – enlisting image, address, building names, type,

year of establishment, age, number of storeys and remarks – and finally a number of case studies with internal layout.



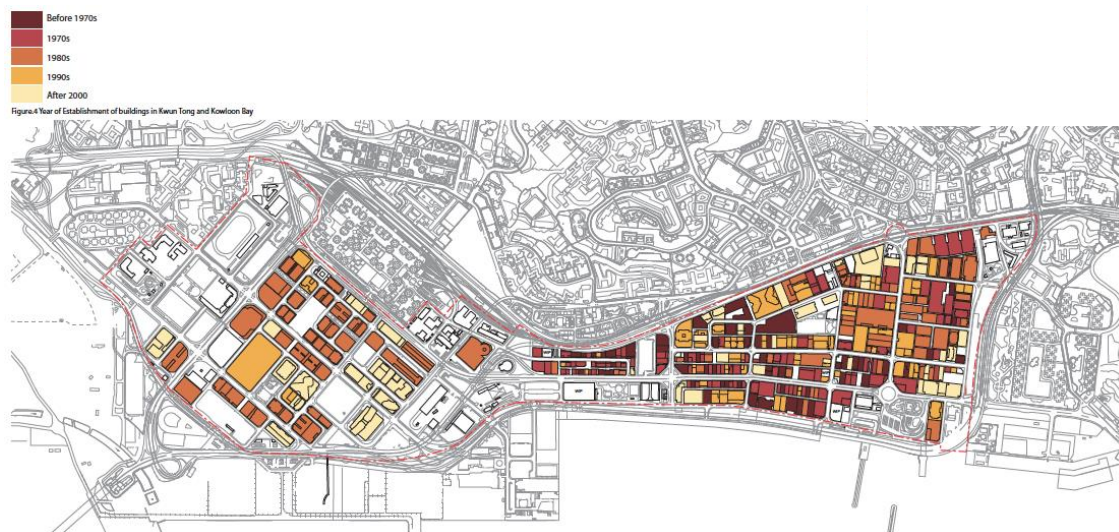


Figure 11: The Architecture Database (3) – Buildings in KT/ KBBA by Year of Establishments

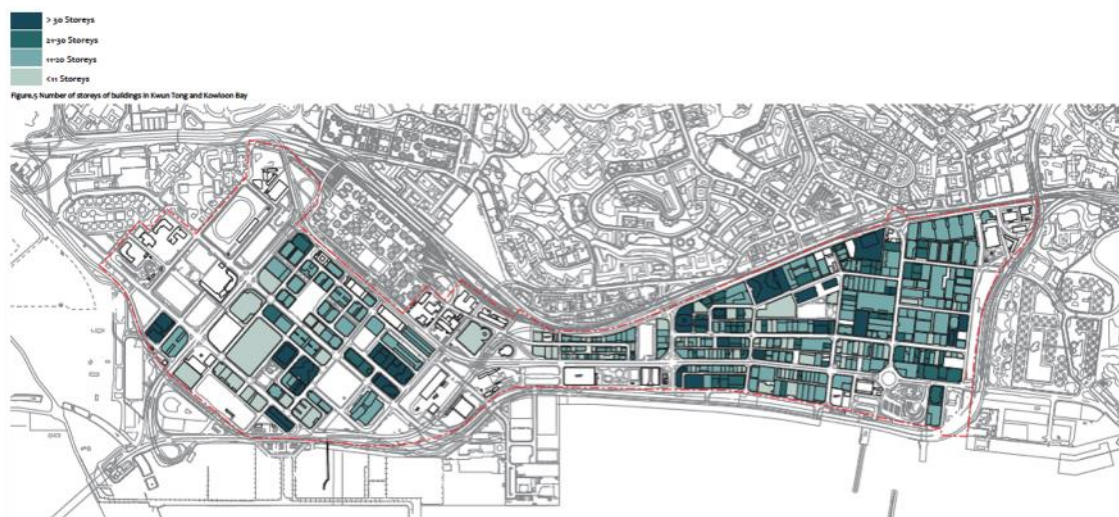
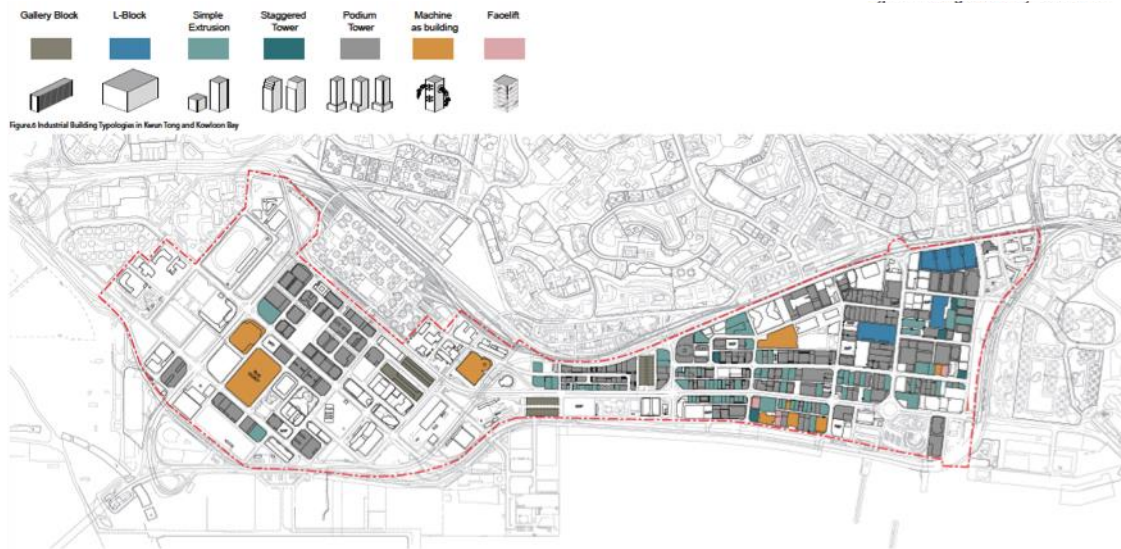














Figure 12: The Architecture Database (4) – Buildings in KT/ KBBA by Number of Storeys



78. 31 buildings with both architectural and historical interests are selected for further studies.



Architectural Database
Selected Building List













	Photo	Address	Building Name	Building Type ^{Note 1}	Year of Establishment	Building Age	No. of Storeys	Remarks
1		No. 46 Tsun Yip Street 駿業街46號	Choy Lee Industrial Building 財利工業大廈	E	1964	49	6	
2		No.380-382 Kwun Tong Road 觀塘道380至382號	Sunciti Industrial Building 新星工業大廈	E	1964	49	5	
3		No.56 Hung To Road 鴻圖道56號	HKI Building 香江國際工商大廈	E	1965	48	10	香江國際針織廠有限公司
4		No. 31 Chong Yip Street 創業街31號	Wing Wah Industrial Building 永華工業大廈	S	1965	48	13	
5		No.368 Kwun Tong Road 觀塘道368號	Grandeur Factory Building 英亞工廠大廈	E	1965	48	5	
6		No. 161 Hoi Bun Road 海濱道161號	Kowloon Flour Mill 九龍麵粉廠	E	1965	47	9	Site visit on 18 April 2013
7		No.71 How Ming Street 巧明街71號	Crystal Industrial Building 晶苑工業大廈	E	1966	47	7	Crystal Knitters Ltd.
8		No.1 Hang Yip Street 恒業街1號	Kwun Tong Factory 觀塘工廠大廈	G	1966	-	7	Demolished in 2009
9		No.98 How Ming Street 巧明街98號	KMB Kwun Tong Depot 九巴觀塘巴士廠	M	1966	47	2	
10		No.140 Wai Yip Street 偉業街140號	Easy-Pack Industrial Building 依時工業大廈	E	1966	47	6	
11		No.380-382 Kwun Tong Road 觀塘道380至382號	Meyer Industrial Building 美亞工業大廈	E	1967	46	12	
12		No. 18 Shing Yip Street 成業街18號	East Sun Industrial Building 怡生工業大廈	S	1967	46	12	

Note: 1. Building Typology is discussed in Part IV - Industrial Building Typology.

Table 1 - Selected Building List

E - Simple Extrusion
S - Staggered Tower
P - Podium Tower
M - Machine as building
G - Gallery Block
L - L Block

Architectural Database Selected Building List








	Photo	Address	Building Name	Building Type ^{Note 1}	Year of Establishment	Building Age	No. of Storeys	Remarks
13		No. 167-169 Hoi Bun Road 海濱道 167-169 號	Kirii Factory 致全貨倉	M	1969	44	6	
14		海濱道 155 號 No. 155 Hoi Bun Road	Dah Keung Godown 大強貨倉	S	1969	44	14	
15		No. 157-159 Wai Yip Street 偉業街 157-159 號	South China Factory Building 南華工業大廈	E	1970	43	9	
16		No. 157-159 Wai Yip Street 偉業街 157-159 號	Union Industrial Building 聯邦工業大廈	E	1971	42	14	
17		No. 177 Hoi Bun Road 海濱道 177 號	Seapower Industrial Centre 海裕工業中心	M	1973	40	11	
18		No. 180A Wai Yip Street 偉業街 180 號A	Wong's Industrial Centre 王氏工業中心	P	1974	39	12	Under Renovation
19		-	Kowloon Bay Factory Estate 九龍灣工廠大廈	G	1975	-	7	Demolished in 2010
20		No. 472-484 Kwun Tong Road 觀塘道 472-484 號	Kwun Tong Industrial Centre 觀塘工業中心	L	1978 Phase 1	35	14	
21		No. 15-17 Tai Yip Street 大業街 15-17 號	Wing Fu Industrial Building 永富工業大廈	P	1979	34	15	Hidden Agenda
22		No. 1 Wang Mau Street 宏茂街 1 號	Yip On Factory Estate 業安工廠大廈	G	1980	33	11	
23		No. 20 Hing Yip Street 興業街 20 號	Union Hing Yip Factory Building 聯合興業工業大廈	P	1980	33	14	Osage Gallery
24		No. 81 Hung To Road 鴻圖道 81 號	Contempo Place	F	1983	30	15	Facelifted to a contemporary office in 2012

Note: 1. Building Typology is discussed in Part IV - Industrial Building Typology.

Table 1 - Selected Building List

E - Simple Extrusion
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L - L Block

Architectural Database
Selected Building List

	Photo	Address	Building Name	Building Type ^{Note 1}	Year of Establishment	Building Age	No. of Storeys	Remarks
25		No. 20 Kai Cheung Road 啟祥道20號	DCH Building 大昌行集團大廈	P	1984	29	10	
26		No.155 Hoi Yuen Road 開源道55號	Hoi Luen Industrial Centre 聯聯工業中心	L	1985	28	15	
27		No.3 Wang Kee Street 宏基街3號	New Camel House 新駝駝大廈	P	1986	27	7	
28		No. 9 Kai Cheung Road 啟祥道9號	Sino Industrial Plaza 信和工商中心	P	1987	26	11	
29		No.3-5 Wang Tai Street 宏泰道3-5號	Hoplite Industrial Centre 合力工業中心	P	1988	25	11	
30		No.60 Hoi Yuen Road 開源道60號	Camel Paint Building Block 3 駝駝漆大廈第三座	E	1989	24	13	
31		海濱道163號 No.163 Hoi Bun Road	Talkoo Car Centre 太古汽車中心	P	1991	22	13	wholesale conversion

Note: 1. Building Typology is discussed in Part IV - Industrial Building Typology.

Table 1 - Selected Building List

E - Simple Extrusion
S - Staggered Tower
P - Podium Tower
M - Machine as building
G - Gallery Block
L - L Block

Figure 15: Details of the 31 selected buildings by building type, year of establishment, building age and no. of storeys

79. The report also includes the transcripts from the interviews with 24 employers/ stakeholders, 10 workers and 4 NGOs providing a summary of legendary stories and anecdotes which include the development of major brands, the ups and downs of business and pride and achievements in Hong Kong and overseas. A list of video programmes from RTHK on Kwun Tong over the years is also provided.
80. Information, stories, objectives and photos collected from the Public Engagement Campaign 'Sharing Memoirs and Extending Legacy in Transformation Kowloon East' launched at the end of March 2013 are also presented in this report.

Industrial Heritage and Design Identity of KT/KBBA

81. The industrial heritage of KT/KBBA should be respected as a unique element in urban design, an inspiring theme for public art, and a sensational link for the past, present and future in the pace of rapid urban transformation. Design guidelines for public space and facilities are specifically advocated for creating a socio-cultural and visual identity that can turn the industrial heritage into elements for public art, public design, streetscape and street furniture that would help branding KT/ KBBA.
82. The core aim is to assist architects, designers and planners etc. with the information and support their need to achieve a consistent high level urban design throughout the development and helping to meet with retaining the flavour of the industrial heritage in KT/ KBBA.
83. It is intended that they can assist in meeting with the aspirations of the people who live and work in KT/ KBBA, and serve to inform both first and last impressions for visitors.

Characters of KT/KBBA

84. From our previous research, we develop a set of characters which may define 7 characters of the streetscape of KT/KBBA and can be inspiration for the design of the urban fabric.
 - a 、 **Robust and mechanistic** – this character stems from industrial building forms and materials which convey a sense of robustness and machine aesthetics;
 - b 、 **Utilitarian and functional** – this refers to industrial building design and expression, especially the purpose built factories for specific industrial production such as flour mill or storage;
 - c 、 **Adaptive, versatile, varied/ mixed** – this character is derived from the urban conditions of coexistence of old and new, factory warehouse and office as well as industry and commerce;
 - d 、 **Continuity** (recycling, up-scaling and layering) – this refers to the continued usage of industrial buildings and renovated premises either for industrial or commercial use;
 - e 、 **Delivery-dominated ground floor activity** – this urban character stems from the practical needs of industrial buildings for direct loading/unloading bay from the street;
 - f 、 **Spirit of Production** (vs consumption) – this refers to the ambience of the district for workers and labourers from manufacturing industries but equally applicable to office workers in commercial businesses;
 - g 、 **Serendipity/uncanny** (since 2000) – this last character relates to the urban phenomena that appear with the development of cultural and creative industries in the area.

85. While these characters define the industrial nature of KE and provide a framework for understanding the existing urban conditions of the area, it might not be necessary to devise a set of urban design guidelines that correspond to each and every of these characters. For example, there is no need to prescribe a design guideline that caters for provisions of delivery at ground floor for future development although such provision may reinforce the existing industrial character of the district. Thus there is no one to one relationship between the 7 characters and the proposed guidelines that follow.

Design Guidelines for Public Space

Park/ Open Space

86. For significant new open space/ revitalization of existing open space, design should incorporate element(s) that reflect the sense of history with expressions of industrial heritage and characters.
87. All design and landscape elements should be integral to create a unique appearance within the KT/KBBA to convey a sense of industrial heritage and character of the area and compatible with the Kai Tak Development.
88. For public spaces next to building sites with significant history of industrial establishment, new design should incorporate element(s) that reflect this sense of history with expressions of industrial heritage and characters.

Paving

89. Incorporate paving that can show history/ information of the industrial heritage. For example, a logo celebrating industries rooted in KT along the trail of discovery map.
90. Paving can adopt graphic that is related to the industrial heritage, e.g. the weaving pattern of the textile industry, the circuit of an electronic product, etc.

Back Lanes

91. Transform back lanes for pedestrian activities to increase vibrancy of the area

Design Guidelines for Public Facilities

Public Seating

92. Seating can adopt features from industries. For examples, seating in Fly the Flyover 01, KT, adopting the wooden deck for cargo storage.
93. Design of seating inspired by features of industries from the past or present.

Switch Box

94. New switch box design should adopt design that reflects industrial heritage.

95. Existing switch box should be re-decorated with design that reflects the sense of history of the industry and community in the vicinity.

Public Art

96. Existing industrial features should whenever possible be retained as public art.
97. Feature design with inspiration from industries (past or present).

Railing

98. Railing design can adopt or reflect the historical industrial style or spirit of making.
99. Design can be in contemporary style and materials to contrast the historical.

Drainage Cover

100. Design can accommodate historical information of the industrial heritage.

Signage

101. Text font used in the industrial age can be adopted to give a sense of industrial heritage.

Design Guidelines for Building

102. Can create reference to industrial heritage and character through architectural form and building materials.
103. New building forms and developments can be consistent in scale with nearby buildings to convey uniqueness of expression that reflect the industrial heritage and character of the area.
104. Architectural expressions can relate to industrial heritage: e.g. the use of material or design for façade can entail the history or industries related to the old buildings/ sites. (Weaving pattern can be used for façade of building that used to be in the weaving industry.)
105. For more design guidelines on private buildings, the Advocacy Statement can be referred to.

Discovery Map

106. A discovery map was drawn to show simultaneously the spots of interest of different times in KT/KBBA. The rationale of this overlapping past and present is an illustration of history as an ongoing process that leaves traits for the present that leads to the future. Visitors to the area will understand significance of the place through the laying and overlaying of history contained in the map.



Figure 16: Overview of Discovery Map

107. The discovery map highlights three zones, and each zone represents the clustering of different industries or activities. The zoning is only to help visitors to comprehend the geography quickly. It is not conclusive in explaining the rich history and complicated landscape of that area, nor is it exhaustive in encompassing all spots of interests. There are also spots that are not covered in these 3 zones.

Zone 1

108. It is characterized by the concentration of the earliest development of Kwun Tong Factories, such as Nanyang Cotton Mill, East Sun Cotton Mill, Camel Paint, China Paint, Li WahMun, etc. that were founded in 1950s. It is also a popular zone that is enlivened by vibrant cultural and creative industries.

109. There are 12 current sites and 7 former sites in this zone.

Zone 2

110. It is characterized by the concentration of some important factories that are still active in manufacturing perhaps at a global/ regional scale, such as Crystal Knitters, Meyer, Kin Hip, United Overseas, South Asia, etc.

111. There are 12 current sites and 5 former sites in this zone.

Zone 3

112. Zone 3 marks the concentration of the waterfront industries such as Kowloon Flour Mill, Dah Keung, Godown, Self-serve mini storage centre, etc. Many buildings in this zone have unique architectural features that derive their forms from functions such as large balconies for lifting of bulky goods.

113. There are 12 sites in this zone.

114. There are 6 current sites and 2 former sites marked as 'Other spots of interest outside the three zones'.

Sequence	Spots of interest	
Zone1		
1	觀塘工業中心－華僑紗廠舊址	Kwun Tong Industrial Centre -Former Site of Wah Kiu Cotton Mill
2	豪華鈕廠	Hoover Button Factory (a)
3	國民製漆公司－駱駝漆	The National Lacquer & Paint Products Company Limited - Camel Paint (a)
4	文明電子有限公司	Keystone Electronics (a)
5	聯合興業工業大廈	Union Hing Yip Factory Building (d)
6	嘉士亞洲工業大廈	Kras Asia Industrial Building (d)
7	潤承大廈	Milkyway Building (d)
8	有利中心	Yau Lee Centre (d)
9	新星工業大廈	Sunciti Industrial Building (b)
10	南洋毛巾廠	South Ocean Towel Factory (a)
11	香江國際針織製衣廠	Hong Kong International Knitwear Manufacturing (HKI) (a) (b)
12	財利工業大廈	Choy Lee Industrial Building (b)
Zone2		
A	中華漆廠舊址	Former site of China Paint Manufacturing company (1932) Ltd. (a)
B	利華民恤衫廠（鱷魚恤有限公司）舊址	Former Site of Li WahMun Company Ltd. (Crocodile Company Ltd.) (a)
C	其士集團舊址	Former Site of Chevalier (a) (b)
D	怡生紗廠舊址	Former Site of East Sun Cotton Mill (a)
E	南洋紗廠舊址	Former Site of Nanyang Cotton Mill (a)
G	電威電器製造廠舊址	Former Site of Hong Kong Soya Bean Products Co. Ltd. (a)
F	香港荳品有限公司舊址	Former Site of Din Wai Electrical Manufacturing Company Ltd. (a)
13	南益紡造有限公司	South Asia Group (a)
14	合眾鈕廠有限公司	Union Button Factory (a)
15	駿業街熟食市場	Tsun Yip Street Cooked Food Market (b)
16	美好電子有限公司	Musical Electronics (a)
17	駿業街遊樂場	Tsun Yip Street Playground (c)

18	九巴觀塘車廠	KMB Kwun Tong Depot (b)
19	晶苑織造廠有限公司	Crystal Knitters Ltd. (a)
20	美亞製造廠有限公司	Mwyer Manufacturing Company Ltd. (a) (b)
21	英亞工業大廈	Grandeur Factory Buliding (b)
22	淘然橡膠製品廠	Toyland Rubber Manufacturing Factory (a) (b)
23	建業五金塑膠廠	Kin Hip Metal & Plastic Fty. Ltd. (a)
24	聯僑企業有限公司	United Overseas Enterprises Ltd. (a)
H	伊人恤衫廠舊址	Former Site of Union V-tex Shirt Factory (a)
I	旭日製衣廠舊址	Former Site of Glorious Sun Enterprise Ltd. (a)
J	香港益力多乳品有限公司舊址	Former Site of Hong Kong Yakult Co. Ltd. (a)
K	七喜飲品有限公司及玉泉飲料有限公司舊址	Former Site of Seven Up Beverages Company Ltd. and Schweppes Beverage Company Ltd. (a)
L	觀塘工廠大廈	Kwun Tong Factory (b)
Zone3 and other spots of interest		
25	勵業街小販熟食市場	Lai Yip Street Cooked Food Hawker Bazaar (d)
26	聯合工業大廈	Union Industrial Building (b) (d)
27	南華工業大廈	South China Factory Building (b) (d)
28	依時工業大廈	Easy Pack Industrial Building (b) (d)
29	德士活製衣有限公司	Texwood (a)
30	大強貨倉	Dah Keung Godown (b)
31	起動九龍東辦事處	Energizing Kowloon East Office-EKEO (d)
32	九龍麵粉廠	Kowloon Flour Mill (a) (b)
33	海濱道 167-169 號	Hoi Bun Road (b)
34	觀塘海濱花園	Kwun Tong Promenade (c)
35	海裕工業中心	Seapower Industrial Centre (b)
36	觀塘公眾碼頭	Kwun Tong Public Pier (b)
37	王氏工業中心	Wong's Industrial building (a) (b)
38	恆生工業大廈	Hang Seng Industrial Building (d)
39	觀塘碼頭	Kwun Tong Ferry Pier (c)
40	永富工業大廈	Winful Industrial Building (d)
41	業安工廠大廈	Yip On Factory Estate (b)
42	開達大廈	Kader Industrial Co. Ltd. (a)
M	九龍灣工廠大廈舊址	Kowloon Bay Factory Estate (b)
N	唯一冷熱水壺廠舊址	Former site of Wei Yit Vacuum Flask Manufactory Factory (a) (b)

Figure 17: List of all spots of interest

Miniature Models Proposal

115. 6 miniature models are proposed and designed, including paving, switch box, public art location, back lane, bench and Energizing Tsun Yip Street Playground Phase 1 with exhibition of “Spirit of Creation”.
116. Paving – Special paving with logo or QR code introducing the history of the building is recommended for Chong Yip Street–How Ming Street and Hoi Bun Road as it covers majority of the spots of interest.



Figure 18: Proposal for special paving along the two main roads

117. Switch Box – 10 Switch boxes are identified along the discovery trail to show the old newspaper clippings that reflect either the history of the industrial building nearby (for KTIA) or the development of the area (for KBBA).

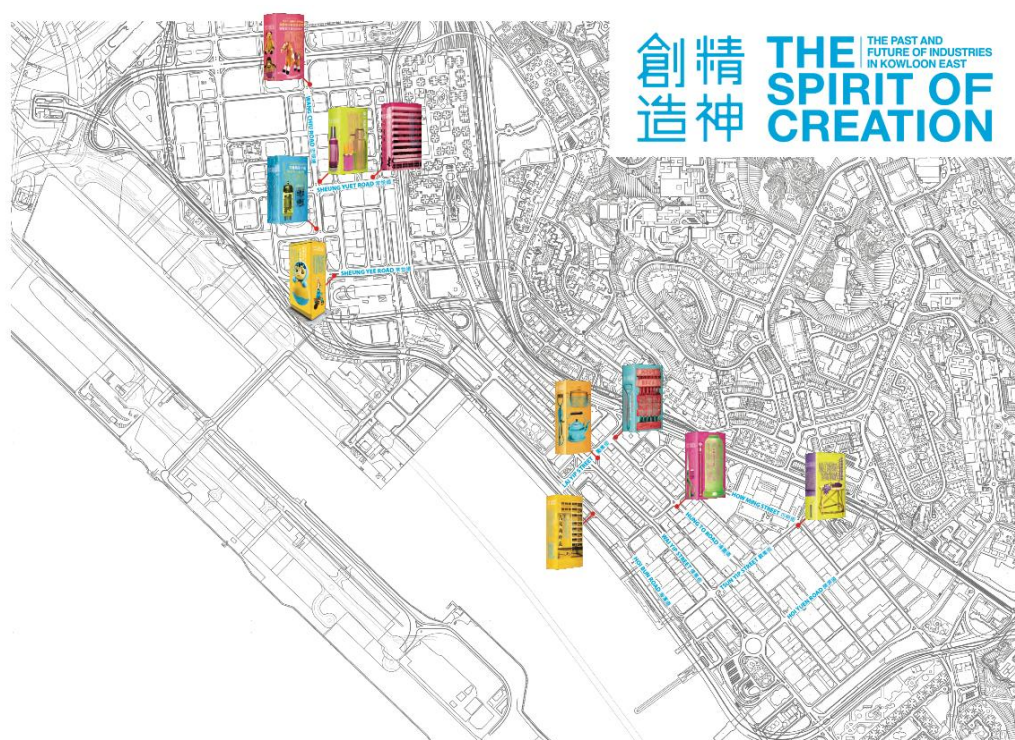


Figure 19: Locations for the switch boxes with new design

118. Public Art – 4 Public Art locations are identified to give character to the four parallel streets.

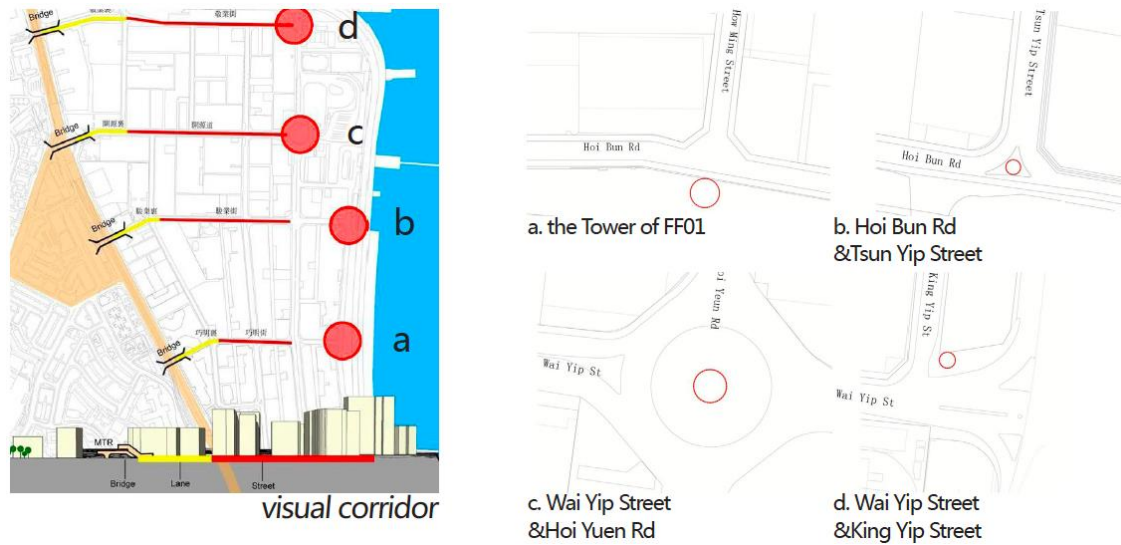


Figure 20: Location for public art location

119. Back lanes – Two back lanes, one between How Ming Street and Tsun Yip Street, the other one between Tsun Yip Street and Hung To Road, are identified to be transformed into urban gallery showing history of Kwun Tong.

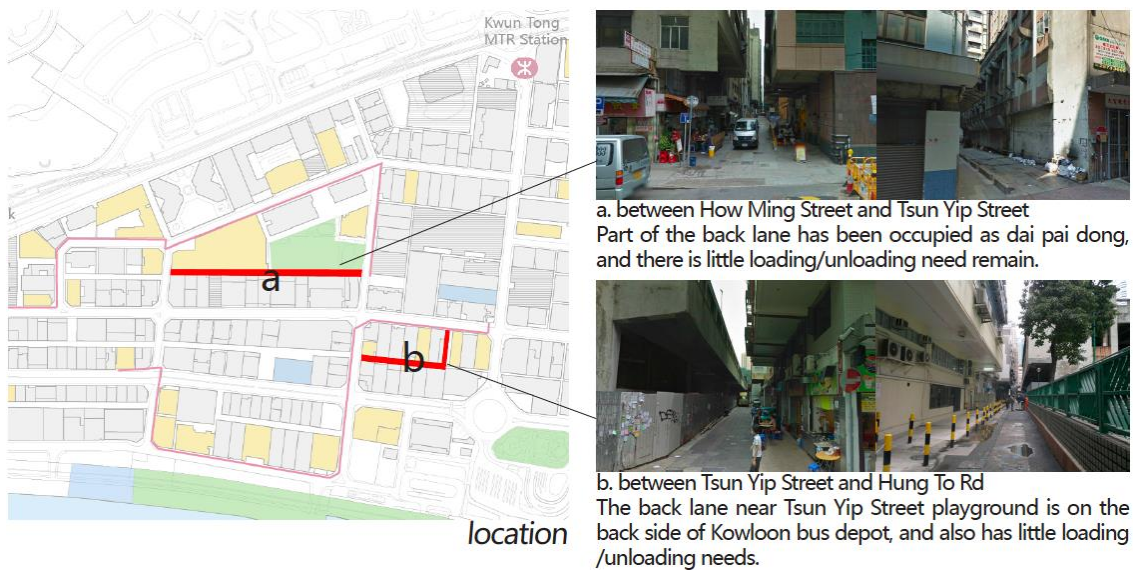


Figure 21: Back lanes with greater potential to be transformed

120. Bench – bench design that reflects industrial heritage will be placed in the Kwun Tong Promenade or other feasible public space.

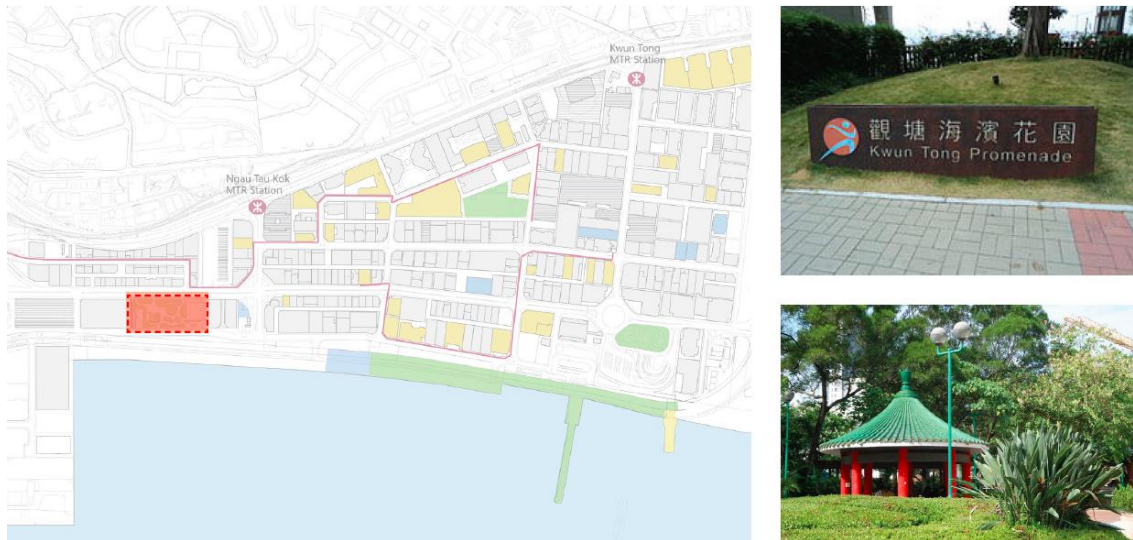


Figure 22: New bench design with industrial character in the Kwun Tong Promenade

121. Industrial cultural installation at Tsun Yip Street Playground Phase 1 is a pavilion showing the industrial culture of Kwun Tong. It consists of 4 containers and some flexible plates as panels.



Figure 23: Industrial heritage installation at Tsun Yip Street Playground Phase I

Advocacy Statement and Guidelines for Private Development

122. The design guidelines, discovery map and miniature models would be immediately applicable for public works. However, to encourage the private owners or developers to observe the industrial heritage of KT/KBBA, consultants come up with a slogan: “Continue the Story of Kowloon East... Understanding the Past to Move Forward... Your Participation will make a difference!” which will be printed on the advocacy pamphlets to be disseminated to the stakeholders to encourage their participation in preserving the industrial culture in KT/KBBA.
123. Some best practices and principles of general approaches are also suggested for the consideration of the stakeholders.

General Approaches

124. Provide a publicly accessible exhibition area in the building for displaying industrial culture of the site or building, including photos, old products and old advertisements.
125. Install a display at the building entrance or external wall to briefly introduce the interesting industrial history of the site.
126. Install an art feature with creative theme related to the former industrial activities of the site.

Approaches for three different scenarios

127. For the redevelopment of industrial sites – incorporate industrial concept in new building design.
128. For the revitalization of industrial buildings – maintain and highlight architectural features that are unique in industrial buildings of a particular period or the functions of the buildings.
129. For the Existing Industrial buildings – maintain and highlight architectural features that are unique in industrial buildings of a particular period or the functions of the buildings.
130. Provide guided tours to explain industrial operations for interested parties.

Conclusion and the Way Forward

131. Industrial culture is an important element that forms the urban character of Kowloon East and should contribute to the present and future place making and transformation of the area into a commercial and business district of Hong Kong.
132. While the Government takes the lead in the urban transformation of the public realm by making reference and acknowledging the industrial culture of

the district, all stakeholders including the private owners of industrial buildings should be encouraged to take part in this process.

133. Redevelopment, revitalization, adaptive reuse and all kinds of renovation or modification of existing industrial buildings should be carried out with due consideration of the historical and heritage aspect of the site and building context.
134. The mechanism adopted for the transformation of industrial buildings and public spaces in Kowloon East would set an example for future transformation of other industrial districts in Hong Kong.