

Hong Kong's Future is Guided by Transit Infrastructure

Corinne Tiry

Hong Kong is a maritime metropolis with 6.7 million inhabitants, very little land and one of the highest population densities in the world. The postwar cityscape can best be described as a forest of skyscrapers standing against mountains. Skyscrapers are the most common structure because they offer an excellent ratio of volume to surface area.

With its small land area and large population, Hong Kong shows the symptoms of a metropolis whose transit network must deal with burdensome constraints. Because of the need to coordinate massive passenger flows, make scarce and expensive land profitable, and cope with the weight of excessive centralization of business activities, the Hong Kong government has continued to promote greater accessibility for more than 30 years. This goal, which is complex, but can create added value, is common and vital to every metropolis wishing to maintain its status within the community of major world cities.

Hong Kong's reputation and economic weight stem from its global-trade and service sectors, the latter being responsible for 89% of current GDP. The creative

nature and effectiveness of government development projects depend on their ability to form multiple links within the metropolis. In Hong Kong, modernization of the transit network requires a coordinated mastery of passenger movement, whether local, regional or global, especially since tourism, which depends partly on the quality of services and transportation, is Hong Kong's second largest income source after commerce.

By the late 1990s, Hong Kong had introduced a wide array of new and significant transportation infrastructure and equipment. These include Chek Lap Kok Airport on Lantau Island, the Kowloon intermodal station and the Tsing Ma bridge. Other major facilities and structures are still in the planning stage.

One important development was the movement of the international airport from the city centre to the outskirts, which involved realigning the city's transit corridors (see *JRTR* 19, pp. 36–43). In the long term, it will likely change the configuration of the urban centres too.

In addition to modernization of the transit network, the change in the airport's location has offered the city new

development opportunities, through redevelopment of the 230 ha of vacated airport land and through urban growth promoted by denser use of new interconnecting transit nodes and by the development of additional reclaimed land. Working together, the government and leading transit operators have succeeded in seizing this opportunity to raise Hong Kong to the status of an important 21st-century metropolis.

Construction of Chek Lap Kok Airport was accompanied by several major rail and road projects aimed at establishing direct, rapid connections from the new international gateway to the city centre. In addition, some lots near the new railway stations were earmarked for their high potential as sites for future urban development adjacent to the new rail corridors. The most innovative of these developments, the new urban district of Tung Chung (originally expected to accommodate 180,000 inhabitants near the airport), has taken advantage of its new accessibility and now represents part of the drive for more balanced population densities by moving urban development westward from the saturated central core.



Victoria Harbour from Hong Kong Island looking towards Kowloon

(Author)

Table 1 Hong Kong Land Use

	Area (km ²)
Private, public, rural residential	67
Commercial/business	20
Government, institution & community facilities	20
Industrial, warehouse & storage	19
Roads, railways, airport	17.5
Open space	20
Vacant development land/construction in progress	27
Other urban or built-up land	25
Total built-up land	230
Agricultural, woodland/shrubland/grassland, wetland, barren land, water	869
Total	1100

Source: Tung Fung, Sai Leung Ng, May Mei Chi Kwan and Erin Shui Ling Yeung, Mapping the Broad Land Use Pattern of Hong Kong, *Planning and Development*, Vol. 17, No 2, 2001.

Table 2 Daily Passenger Journeys on Main Public Transport and Operator

	Buses	Ferries	Tramways	Rail	Subways	Total rail
	KMB, CMB	HYF, SFC	HKT	KCR	MTR	
1959	409,257	134,225	172,763	5,087	-	5,087
1969	824,342	230,226	162,052	9,217	-	9,217
	KMB, CMB, NLB					
1978	1,117,370	185,396	138,655	15,385	-	15,385
1980	1,189,992	178,545	159,183	19,341	167,533	186,874
	KMB, CMB, NLB, KCRB			KCR, LRT		
1989	1,698,241 ¹⁾	116,953 ²⁾	127,562	235,690	687,598	923,288
	KMB, NLB, KCRB, CB, LWB, NWF					
1999	1,675,379 ³⁾	57,248 ⁴⁾	87,864	390,960	789,705	1,180,665

For 1959 and 1969: Passenger journeys represent the number of tickets sold or fares collected for single journeys and estimates of journeys made by holders of season tickets.

1) Public light buses included

2) Minor ferries included

3) Red minibuses included

4) Licensed ferry services included

KMB = Kowloon Motor Bus; CMB = China Motor Bus; NLB = New Lantau Bus; KCRB = Kowloon-Canton Railway Bus; CB = Citybus; LWB = Long Win Bus; NWF = New World First Bus

HYF = Hong Kong and Yaumati Ferry; SF = Star Ferry

HKT = Hong Kong Tramway

KCR = Kowloon-Canton Railway (East Rail); LRT = KCR Light Rail Transit; MTR = Mass Transit Railway

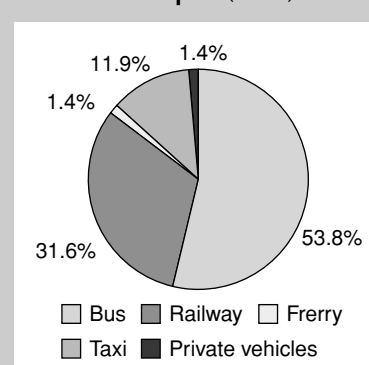
Source: *Hong Kong Report of the Year*, Hong Kong Government Press, 1970, 1979, 1983, 1992; *Transport in Hong Kong 2002*.

Development of Rapid Urban Transport

Curiously, for such a densely populated metropolis, the rapid transit network was developed later than in other metropolises, such as Tokyo, Paris and New York. It is true that Hong Kong developed later than those cities, and its area and topography pose greater challenges—its land area is only 1100 km², and 70% of this is so mountainous that little has been built there (Table 1). In fact, Hong Kong's most economic activities are rarely located outside a circle with a radius of about 7.5 km centred on Victoria Harbour. However, the centralization of its economic functions and the wider distribution of population within the main three inhabited zones—Hong Kong Island (19.1%), Kowloon (29.9%), and the New Territories (51.0%)—indicate the importance of transit links, especially because parts of the metropolis are separated by water.

Until the late 1970s, two companies operated 34 and 16 km of railways, respectively, but they found themselves marginalized within a transport market dominated by many cheap private ferry and bus companies (Table 2). The Kowloon-Canton Railway Corporation (KCRC, today also known as KCR East Rail) was opened in 1910, and electrified at the beginning of the 1980s. It runs from the densely populated Kowloon peninsula to the old border in the north. It passes through the eastern New Territories, which helped promote development of many new urban areas along the rail corridor after WWII. However, this line remained the only interurban railway in the territory for more than half a century. Likewise, the only tramway line serving the north coast of Hong Kong Island, where the central business district is located, has never been extended since it opened in 1904. Hong Kong residents had to wait until 1979 for a new, rapid transit system

Figure 1 Modal Shares of Public Transport (2001)

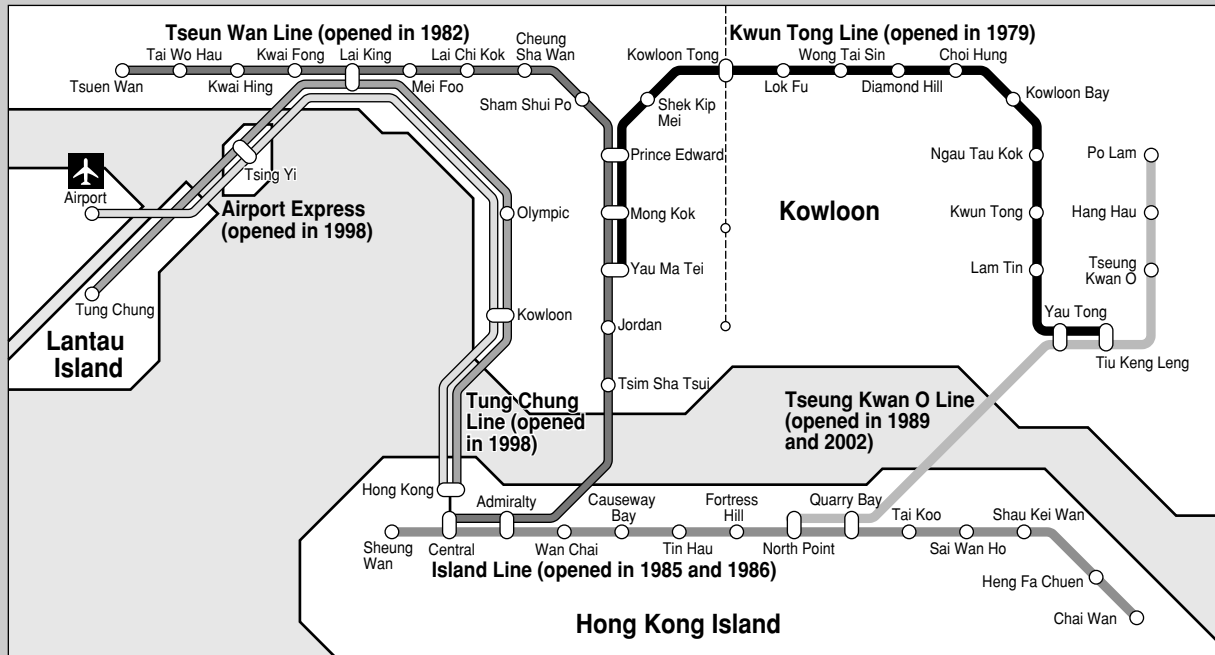


that now supplements the pre-existing, heavily used passenger network, alleviating the high congestion to some extent. In 1978, some 6.3 million passenger journeys were being made every day over a network of buses, ferries, trains, trams and taxis. By 2001, this figure had nearly doubled to 11 million daily journeys over the entire network.

The network was expanded with the addition of five Mass Transit Railway (MTR) subway lines over 20 years. Although buses remain the dominant transport mode in Hong Kong (Fig. 1), today more than 2.2 million passengers travel daily over the MTR network, which has 87.7 km of lines and 49 stations (Fig. 2). However, this impressive growth in ridership over the last 20 years can also be explained by a sustained increase in population—1 million additional inhabitants in each recent decade—and by the persistently low rate of automobile use among Hong Kong households (142,000 registered private automobiles in 1978 and 382,000 in 2001). This clearly illustrates the overwhelming dominance of mass transit in Hong Kong.

In 1973, the Hong Kong government decided to construct a rapid transit system in order to reduce congestion in the existing network. Two years later, the

Figure 2 Hong Kong Rail Network



Source: MTRC/Marketing, Graphic Design Section, January 2003.

government established the Mass Transit Railway Corporation (MTRC), and gave it full responsibility for financing, constructing and operating the new subway system. As an independent entity entirely owned by the government before privatization in 2000, the MTRC has not received any government subsidies. This is also the case for other Hong Kong passenger carriers. On the other hand, the government grants land to both the MTRC and the KCRC—they are not required to buy it in the open market. Because carriers must obtain their own financing without recourse to public funds and because transit operations are barely profitable, the MTRC has adopted an aggressive business strategy involving pursuit of substantial income from real estate constructed over its stations. It promotes these projects alone or in joint ventures with other private developers. One advantage of increasing density

around stations is that the population growth in those areas ensures a massive and loyal ridership. Self-financing has led to a progressive evolution within the MTRC, under which the company has boosted its presence as a carrier by becoming a powerful real-estate developer and, ultimately, an important player in urban planning too.

The Vertical Metropolis —Combining Transit with Real Estate

The opening of five MTR subway lines between 1979 and 1998 was accompanied by numerous real-estate projects promoted by the MTRC. These massive projects demonstrate the major investments that MTRC made and indicate how much Hong Kong's infrastructure and cityscape have changed. The 20 years were marked by two distinct development

eras, each one producing a distinct generation of new urban configurations. The first three MTR lines were constructed to serve areas that were already built up and had only a local impact on urban transformation because a scarcity of available land restricted real-estate opportunities. To compensate, the MTRC adopted a two-pronged approach—denser use of available land, and diversification of urban functions above and adjacent to certain stations. In this way, the company could promote real-estate projects that both financed construction of transit infrastructure and also attracted more users to the nearby facilities and services. The architectural principle puts the station underground and constructs a massive base (podium) over it. The podium houses commercial enterprises that are accessible from the station and street, and supports a number of residential and/or office

towers that are accessible from the commercial zone. The podium roof generally has a relatively large park-like space for exclusive use by residents and includes some facilities and community services. The podium serves as a node linking the various services offered in the complex. Although the station is generally invisible from the outside, it is instantly recognized because it supports a vertical colossus that contrasts with other buildings nearby.

The MTRC has exploited the vertical possibilities of land by stratifying different urban functions, such as transit, shopping, recreation, dwelling and work. Elsewhere, these functions are customarily distributed in a linear fashion along a transportation corridor. Projects promoted by the MTRC have created vertical, autonomous enclaves within the city.

Some of the first of these rail and urban developments occurred in large sites, such as Kowloon Bay and Tai Koo where the MTRC tested its vertical stratification model on a very large scale.

The Kowloon Bay urban complex, located near the closed Kai Tak Airport on the first subway line (Kwun Tong Line), was the first major real-estate development project launched by the company (in the early 1980s). The project was remarkable in combining the functions of a busy train depot with ordinary real-estate functions (station, commercial enterprises, housing and offices), in order to maximize profits from the available land. A nearby large plot of land that had been previously used for train maintenance was available, making it possible to develop a massive complex on a rectangular slab with an area of approximately 9 ha. The pillars for the slab stand between the tracks and the slab covers the entire site and adjoins the street-level station. It houses commercial enterprises and forms a podium that supports some 40 residential towers as well as MTRC's head office.

The Tai Koo complex is located on the

third MTR line (Island Line). The line opened in the mid-1980s, and took advantage of the opportunity presented in 1987 by the closure of naval yards. The site's size and shape permitted development of several commercial and residential buildings designed according to the same stratification principle plus two office towers all linked by a network of covered pedestrian bridges. The underground station is a major access point for the entire complex and the podium, permitting pedestrian traffic in all directions. Other developments for commercial and service enterprises have grown above several stations along the Island Line, which traverses the business district, including Sheung Wan, Central and Admiralty.

Integrating Transit, Real Estate and Urban Planning

The success of these early projects made the MTRC aware of the economic potential of its stations even in areas not generally considered suitable for service enterprises, such as Tai Koo and Quarry Bay. An initial assessment of the advantages was made at the end of the 1980s as soon as the first four MTR lines were completed.

The company then decided to enhance the three functions of its stations: the technical (transit infrastructure); the economic (investment and financing); and

the urban (focal point of district). The company's planners looked on stations primarily as technical and economic driving forces, but they realized that stations must also play an active role in the districts they serve.

The formerly accepted generic approach, emphasizing complexes rather than stations, tended to minimize the interconnecting-node role of the station and favour the podium. Architectural embellishments were generally reserved for the podium, while stations remained a purely technical and functional space repeated over and over using similar plans without added value. At the time, stations were still not considered to have a strong physical impact on the overall complex. Designers following this approach did not give a unique character to each of the sites, nor did they give a separate urban status to railway infrastructure. However, with time, it was realized that this early approach was functional but did not impart identity, so it was re-evaluated.

Plans to relocate the airport created an opportunity for the Hong Kong government to launch major transit projects. These began in the early 1990s, and made it possible for the MTRC to begin constructing its second generation of rail and urban development projects. These were located along the fifth MTR line offering two parallel services (the

Table 3 Ten Airport Core Programme (ACP) Projects of Hong Kong's Port and Airport Development Strategy (PADS)

- Airport (first runway and associated facilities)
- North Lantau Expressway
- West Kowloon Reclamation
- West Kowloon Expressway
- Western Harbour Crossing
- Route 3 (part)
- Airport Railway
- Part of Central and Wanchai Reclamation related to Airport Railway
- Lantau fixed crossing (including rail portion and Route 3 interchange)
- Tung Chung Development Phase 1

Source: *Hong Kong's Port and Airport Development Strategy. A Foundation for Growth. PADS*, Hong Kong Government, 1991.

Table 4 MTRC Property Development on Airport and Tung Chung Lines

Station	Hong Kong	Kowloon	Olympic	Tsing Yi	Tung Chung
Site area (ha)	5.71	13.54	16.02	5.40	21.70
Domestic GFA (m ²)	-	608,011	493,152	245,700	935,910
(number of apartments)	-	(5,816)	(7,146)	(3,500)	(12,356)
(number of inhabitants)	-	(15,000)	(20,000)	(10,000)	(35,000)
Shop GFA (m ²)	59,460	82,750	62,400	46,170	55,668
Office GFA (m ²)	254,190	235,778	111,000	-	15,000
Hotel/service apartment GFA (m ²)	102,250	163,472	-	-	22,000
Total GFA (m ²)	415,900	1,090,011	666,552	291,870	1,028,578
Built-up density (m ² /ha)	72,837	80,503	41,607	54,050	47,400

GFA = Gross Floor Area

Source: *Property Related Services*, MTRC, HK, 2002.

Airport Express Line and the Tung Chung Line, both starting operations in 1998).

The fifth MTR line was planned with two objectives. The primary objective was to serve the new airport that would be located far from the urban core (in 2001, ridership was 25,000 passengers per day); the secondary objective was to alleviate congestion in the entire existing network, which was saturated, especially in the Kowloon area. The fifth MTR line was designed as part of an ambitious, government-driven plan to modernize the entire territory—in other words, it was conceived as part of an overall urban development plan, not just as an addition to the transit network. In fact, construction of the line was grouped with other major infrastructure and urban projects, becoming part of the 10 Airport Core Programme Projects of Hong Kong's Port and Airport Development Strategy (PADS) announced in 1991 (Table 3). These 10 major projects drew their energy from the construction of the new airport and were essential to the airport's success. They are part of a plan to develop a new zone in western Hong Kong, which had hardly been previously exploited.

The fifth MTR subway line (34 km, seven stations) runs through districts that are quite different from those of earlier lines. Some were little developed, while others were reclaimed land. Land set aside for the new stations offers excellent

development opportunities. Five of the sites (Hong Kong/Central, West Kowloon, Tai Kok Tsui, Tsing Yi and Tung Chung) have a total area of almost 62 ha. Other sites are under construction, including Penny's Bay, where a Disneyland is scheduled to open in 2005.

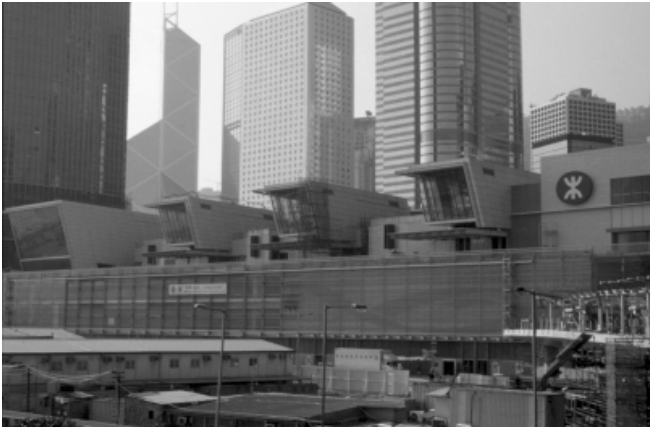
The variety of the districts to be served—from highly urbanized areas on Hong Kong Island to less-developed sites on Lantau Island—indicates the need for many different approaches. Each station has its own architectural design and satisfies urban planning requirements that a station be specific to its surroundings and become a new urban centre serving its neighbourhood and region. The diversity and size of the projects clearly indicate these objectives (Table 4). While the stations on the Airport Express Line (Hong Kong, Kowloon, Tsing Yi and Airport) each have a unique, indeed spectacular design, those of the Tung Chung Line (Olympic, Lai King, and Tung Chung) are more subdued. In each case, the station design was done by an independent architectural office under the guidance of MTRC.

Hong Kong Station —Ultimate Interconnectivity

Hong Kong Station is located in the heart of the business centre on a first-rate waterfront location. The station is the

focal point of the new metropolitan line. For disembarking passengers, it is the gateway to the metropolitan centre, while for other transit users it evokes an image of the airport which is only 23 minutes away. The architectural vocabulary conveys a sense of modernity that applies equally to the airport and the financial district. For example, the International Finance Centre (IFC) complex built over the station has a number of elements indicative of the modern age: a spacious atrium where travellers can check luggage; two office towers; a podium occupied by commercial enterprises; and a hotel boasting a park (still under construction). The atrium is the main element of the north side. With four levels enclosed in glass, this extensive space offers views of the port and lets in plenty of natural light. One of the two office towers, called One IFC, is an 88-storey skyscraper—the city's tallest. It stands out against the skyline, and is a new landmark. One IFC sits on an open, circular podium serving as the focal point for the westernmost part of the complex. The concourse attracts pedestrian traffic from the footbridges, then leads it to the three commercial levels above the station. Built on a relatively small plot of reclaimed land (5.7 ha), Hong Kong Station is one of the most well-equipped yet compact interconnecting nodes on the new line. The building is bordered to the north by ferry terminals, and to the south by the Exchange Square complex, with its three tall buildings, road depot and parking lots. A network of pedestrian bridges feeds into the complex and branches out into the central district. A large tunnel with moving sidewalks links Hong Kong Station to the neighbouring Central Station.

Accessibility from the immediate surroundings is excellent because of the station's numerous physical connections—aerial, underground and ground level—and also because of certain



Waterfront area north of Hong Kong Station facing Victoria Harbour (Author)



Podium for skyscraper at Hong Kong Station serving as interconnecting concourse for pedestrian traffic (Author)

visual factors, including verticality and transparency among the surrounding urban fabric. The station building spreads out dramatically in three dimensions, creating an urban topography that stands out among the relative flatness of the surrounding cityscape.

Kowloon Station and Pedestrian City of Future

Kowloon Station stands on the south-east side of Kowloon, facing the Kowloon Central business district. It is the largest of the stations on the new line, and will serve as an anchor for a gigantic urban development being constructed in several phases on 13.5 of 334 ha of land reclaimed from the adjacent sea.

The project represents the most successful example of how the stratification of urban functions, tested 20 years earlier by the MTRC, has evolved. The core concept calls for a complete separation of automotive and pedestrian traffic and a complete separation of mobile and static activities using an interface that follows the proportions of the site. The concept was followed by constructing a pedestrian platform 18-m above ground level, and placing the station in the centre. All functions that are static (housing, offices, hotels) are accessible from the platform,

while all functions that are dynamic (transportation, commerce) are concentrated beneath the platform. The remarkable openness of the station covering, which lets natural light penetrate to great depths within the concourse, gives an open atmosphere to this massive yet compact podium. Imposing with its huge, inorganic public space, the station is located so as to ensure easy access from above and below, thereby fulfilling its role as an important hub. The absence of structures above the subway tracks allows for an axis for sight-lines from one end to the other, defining the configuration of the structures and guiding the platform traffic. Three levels of the podium (two underground, one at street level) house all the infrastructure and facilities for the various transportation modes. The first and second levels contain a pedestrian network of shops, public spaces and footbridges linked to the surrounding buildings. The platform is part of a wide, open, landscaped space, and was designed to offer views of the Bay. Several office and hotel towers will be constructed near the central core, with residential towers laid out in a peripheral zone east of the major axis. Freed from height restrictions formerly imposed by the nearby Kai Tak Airport, the 22 new buildings average 50 stories each.

Because they are higher than usual they are fewer in number, leaving more open space above the platform.

When completed, the Landmark skyscraper will rise above the south-east part of the complex. It will be similar in size to IFC One in Central, and will symmetrically complete the image of Victoria Harbour as a modern gateway turned towards the west.

Spatial Integration at Tsing Yi Station

Tsing Yi is a small island between the south-west part of the New Territories and Lantau Island, and faces Hong Kong's freight docks. When the Tsing Ma bridge was built and the new MTR line opened, Tsing Yi found itself in a privileged position, being conveniently linked to the airport, to the centre of Hong Kong, and to the New Territories.

The land set aside for the new station is relatively small (5.4 ha) and has turned out to be among the most restricted. The site is hemmed in on one side by Rambler Channel, a very busy waterway used for freight transport, and it was necessary to construct a dual-level bridge for the two subway lines. The bridge crosses the developed site, which was planned to butt against it. By running the track on an



The residential and commercial complex straddling Tsing Yi Station is pierced by the railway infrastructure. (Author)

upper level through the podium, the planners abandoned the common principle of using stratification to separate urban functions. This offers two advantages. First, the two spacious, brightly lit concourses (one for the Tung Chung Line at the first level of the podium, the other for the Airport Line two levels above) breaks the spatial monotony of the shopping mall and fully integrates the station with the entire complex, making it a superlative interior gateway. Second, because the land along the waterfront was kept free of track, it was possible to transform it into a linear park and to offer greater accessibility between the podium and its immediate environment.

A dozen residential towers for 10,000 inhabitants have been built on both sides of the undeveloped railway right-of-way, dividing the roof of the podium into two equal triangles and forming a landscaped corridor for sight-lines that permit a visual idea of the entire architectural form. To the north, tall buildings run along the axis, and are thus separated from a noisy rapid-traffic corridor. To the south, other

buildings create an angle permitting the emergence of the curved roof of the Airport Line concourse.

Tung Chung Station —Priority on Public Space

Tung Chung is a new urban district between the sea and mountains on Lantau Island at the doorstep to the new airport. It was planned as a two-phase development and the plan was fine-tuned with a view to ultimately accommodating 320,000 residents by 2011. Tung Chung has direct links to the centre of Hong Kong and is currently populated mainly by airport staff.

About 20 of a total of 67 ha reclaimed from the sea have been reserved for the first development phase. The terminus of the Tung Chung Line is the central element in the plan and its presence has dictated conditions set out in the overall plan. One of the priorities agreed by the government and MTRC's urban planners was to create a district in which all residents live no more than 5 minutes on foot from the station. This priority was embraced in order to reduce dependence on other modes of transportation.

Numerous factors, such as the large amount of available land, fewer density restrictions in this sparsely populated part of Hong Kong, and the ability to put the subway line underground have created excellent opportunities for innovative urban planning. Although some stratification principles still remain, the model favouring vertical stratification of urban functions has been abandoned in favour of horizontal distribution. The urban functions are linked through large spaces reserved for pedestrian use at ground level. The development is characterized by its diversity of functions, a number of open spaces, and abundant greenery (Table 5).

The north-east/south-west orientation of the mass of the station building creates a

long corridor for sight-lines toward other parts of the new waterfront district (which is still under construction). The various construction projects, for housing, businesses, several office buildings and a hotel, have been planned along this major axis. The station is a slender, two-level rectangular structure. Trains run underground and the ground floor is a linear, well-lit concourse with a high ceiling, accommodating the usual type of station services and small businesses. Bordered on one side by a pedestrian courtyard and on the other by a road for taxis, buses and mini-buses, the station building is very pedestrian-friendly, permitting easy access on the same level. A pedestrian bridge with transparent cover runs through the station at the upper level, joining a pre-existing commercial centre on one side and a new type of podium on the other. The footbridge forms a link over the North Lantau Expressway and the parallel underground track of the Airport Line, and connects with the elevated pedestrian network that serves the rest of the new district. The linear podium houses a number of businesses and offices, and its roof has a walkway with vegetation, leading both physically and visually from one end to the other to various parts of the city.

Beyond the station and the podium, toward the mountains, eight residential towers form an arc pierced by the visual axis stretching from the station. A public walkway with vegetation is aligned with this axis. The walkway is some 30-m wide and will connect the station courtyard to a future park at ground level. The smooth-surfaced 30- to 50-storey buildings are built on pillars varying in height from 10 to 16 m. Elevating the buildings in this way offers many advantages—it increases air circulation within the site, creates visual openings permitting sight-lines through the development, provides each apartment with a view of the imposing landscape, and ensures urban continuity



Orientation of station providing axis for sight-lines through residential towers of downtown Tung Chung (Author)

by integrating supplementary functions (businesses, facilities, parking lots, pedestrian traffic) at ground level. The general planning for the site now integrates these supplementary functions within the podium.

The podium is small with no more than two levels. It is covered with greenery and has two distinct elements: the commercial, which is easily accessible to the general public, and is defined by the curved alignment of the tall buildings above; and the amenities consisting of parking lots, gardens, etc., which are for exclusive use of residents and located in the central space defined by the curved alignment.

Railway Infrastructure — Important Role in Future Development

The first KCR railway line highlighted other new and impressive urban development projects launched in the New Territories after WWII. Subsequently, the aim of most MTR subway lines was to serve other densely populated districts. But the new MTR subway line in western

Table 5 Tung Chung Land Use

	Area (ha)	Proportion (%)
Commercial	2.16	0.85
Comprehensive development area	22.85	9.04
Residential (Group A)	36.01	14.24
Village type development	5.43	2.15
Government, institution or community	17.74	7.02
Open space	55.80	22.07
Other specified uses	2.69	1.06
Green belt	47.10	18.63
Major roads, etc.	63.03	24.94
Total	252.81	100.00

Source: *Tung Chung Town Centre Area: Outline Zoning Plan, Town Planning Ordinance, Hong Kong Town Planning Board, 2002.*

Hong Kong was planned as the backbone for future urban development projects. Now that most of these projects are edging toward completion, it is possible to evaluate their role in integrating urban and transport functions.

The gamble made jointly by the Hong Kong government and the MTRC shows that there are still alternatives to uncontrolled urban development and dependence on the automobile in large industrialized cities. More than anything, it confirms that planning on two scales—local and global—is the key to future comprehensive development of the urban landscape. It also shows that cities can be redeveloped and renewed through mass transit if the transit system is given supports, such as combined functions, denser use at interconnecting nodes, intermodality, and appealing open spaces. In Hong Kong, these supports aid rail transport in every case, whether they are huge metropolitan structures or a composite urban fabric.

Stations, whether they have an integrating role as at Tsing Yi or a dominant role as at Tung Chung, will henceforth be evaluated according to the advantages they add to the city. The advantages are multiple, and involve economic, social and ecological forces. Architecture plays a major role in releasing these latent forces. ■

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Corinne Tiry

Ms Tiry is a French architect-researcher. She attended Kyoto University from 1994 to 1996 as a researcher on a scholarship from the Japanese Ministry of Education, Science and Culture. She then received an AFAA grant from the French Ministry of Foreign Affairs to study in Tokyo as a freelance architect-researcher from 1996 to 1997. She has written several articles for specialist magazines (including *JRTR* 13, 20 and 28), and is the author of *Learning from 3 Tokyo Stations, 1997–2000* (CD-ROM format). In 2003, she was awarded an AFAA grant *Villa Médicis Hors Les Murs* for research in Hong Kong. She is a current member of the research team AVH (Architecture, Ville, Histoire) at Lille Ecole d'Architecture.