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# **Surveying & Built Environment**

THE HONG KONG INSTITUTE OF SURVEYORS

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# Editorial

## Trees on a barren rock

Lawrence WC Lai

That Hong Kong appeared more or less a barren rock by the early 19th Century was a matter of property rights rather than a natural state of affairs. Open access and economic demand in the nearby regions and agriculture resulted in the decimation of a sub-tropical forestry cover on its slopes and flatlands.

Otherwise, it would be futile to plant trees in Hong Kong. Since 1842, the local administration has diligently planted trees and the results were only reversed for a while during the Japanese occupation when the authorities and people chopped down trees for power generation and cooking.

Trees grow easily in Hong Kong and their biomass on government and even private holdings has definitely and tremendously increased despite rapid urbanisation and population growth since 1945.

A careful comparative analysis of government aerial photos taken by RC Huntings in 1963 and 1964 and those taken recently would testify to this point of view. A shift in the type of energy supply for domestic purposes from firewood to fossil fuels, the abandonment of grazing and cultivation, global warming, and government efforts

in tree planting have contributed to an increase in trees in Hong Kong.

From May-June 2006, a Hong Kong University team excavated a buried gun emplacement at the disused Pottinger Battery on Devil's Peak. This archaeological process removed the bushes inside and around the battery. Within just one year, the place was overrun once more by new trees and thick bushes.

It is very safe to say that it is easy for trees to grow in Hong Kong due to its climatic, geographical, and economic conditions.

However, not a few people now treat the felling of a tree as a major evil. The love of trees often adds enormous cost to, and even frustrates, much-needed development.

Many do not realize that unless they are under constant and careful management, trees that grow close to a building do not only obstruct its view and the view of its occupants, but also undermine the building's structural conditions due to root action.

The integrity of the structures of many graded military relics cherished by many, for instance, have already been

subject to the bad effects of trees, which would not have been there if those structures were still in active service.

No sensible heritage preservation enthusiast would have allowed trees to grow around the apron of a former gun emplacement. Those trees that have grown inside and around the gun emplacements of the Gough and Pottinger Batteries and Mount Davis Fort are cases in point.

Against this background, some argued that the large number of trees that collapsed during the last typhoon in 2018 was the result of a poor government tree-planting approach in Hong Kong's urban and rural areas.

Let us reflect on the point that most of the trees that collapsed exhibited very short roots. This is a valid observation.

The problem is that this fact somehow became entangled with the comment that tree planters along roads are "too small and shallow".

Before proceeding, there is a need to point out that it is not just the trees grown in concrete planters and collapsed that had short roots; many more that fell down in the country parks (say in the Aberdeen Reservoir catchment areas) and greenbelts also had short roots, too. Same goes for the big trees that were found to have collapsed around Pottinger Battery.

Therefore, the correct inference is that both natural and artificial *soil depths*

*are far too shallow for tall trees to withstand a major typhoon.* Then what is really to blame?

There is a strong reason why the government wants to limit the size and depth of a tree planter. It must refuse to allow any big tree to grow along a pedestrian path or median strip. This is for traffic safety reasons, especially as they now seem to have been planted very close to each other. In Downtown Melbourne, trees were planted and spaced about three-car lengths from one another, but in Hong Kong they are sometimes planted just half a car apart! For proof, go see those young trees planted near the pedestrian bridge outside the Chai Wan campus of THEi.

The trees were NOT supposed to have grown so big in the city center in the first place. The valid criticism of this practice is not about soil depth, but a reluctance to trim and limit plant size. Trees should not be allowed to grow indiscriminately, if at all, along narrow roads in a vertical urban environment. To plant a tree in an urban area, as if it were a country park, and say it "cannot be touched" is a big mistake. To expect a tall tree that grows in shallow soil, whether in an urban or rural area, to withstand a strong typhoon defies science.

For those of us who have lived in Hong Kong over the last 50 years, big branching trees along roads have always been considered dangerous objects; trees located near homes were also hazardous. Remember that the

tree branch which fell on the head of a young passenger on a double decker bus on Nathan Road and killed him?

For the sake of public safety and conservation of heritage buildings, arboreal experts should be employed to prune trees so that they remain attractive and sustainable “bonsai” or potted flora.

If not, the alternative is to not replant more trees but to axe those that are already oversized!

4 April 2019



# Cape D’Aguilar: an Example of Multilayered Heritage

Stephen Davies\*

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## ABSTRACT

Heritage structures are too often looked at in temporal isolation, not as part of an environmental complex, whether streetscape or landscape, the elements of which change through time in mutually connected ways. In the jargon, too little attention tends to be given to how a space becomes a place and how the place gets irregularly redefined. This essay considers Hong Kong’s Cape D’Aguilar as a worked example.

## KEYWORDS

Lighthouse, radio station, signal station, gun battery, map, chart, toponym

## INTRODUCTION

Cape D’Aguilar – the English name – was given its present English name by Lt Thomas Bernard Collinson RE after his senior officer, Major-General George Charles D’Aguilar (**Norton-Kyshe 1898**).<sup>1</sup> Collinson was the British military engineer who made the first modern topographical survey of Hong Kong Island in 1844-45, creating the pioneering first map of Hong Kong with its early use of hill contours (**Davies 2012**). In the process Collinson pushed a track right down to the end of the Cape D’Aguilar peninsula in order to erect two trigonometrical survey

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<sup>1</sup> D’Aguilar is noted as effective but inclined to eccentricity.

stations. What he mapped beyond the last settlement was depicted as an otherwise completely empty space. It was indeed empty space to the British colonizers, though almost certainly not to the indigenes as a look at its toponymy will indicate. But to both groups the area was important and what we are going to look at is how that importance – socio-economic, topographic, hydrographic, communicative, military and academic – turned it into the place that we study today as a complex, multi-layered example of Hong Kong’s built heritage.

## A FOUNDATIONAL PLACE: TOPONYMY OLD AND NEW

At the south eastern tip of Hong Kong Island (originally, possibly, Hung Heung Lo, 紅香爐),<sup>2</sup> Cape D’Aguilar (originally appearing on western charts as Tylong Head (大浪角 – Big Wave

Head<sup>3</sup>) dominates two historically important waterways. To the east it looks over the entrance to the Tathong Channel (Tat Hong Mun, 大東門<sup>4</sup>), which leads to the eastern entrance to Victoria Harbour<sup>5</sup> at Lei Yue Mun (鯉魚門). To the south it looks over Sheung Sze Mun (雙四門),<sup>6</sup> which is the inshore route from the waters east of Hong Kong towards the main channels of the Pearl River.

Quite what Cape D’Aguilar’s Chinese name may actually have been we don’t really know. The Hakka founders of the small hamlet nearby, whom local lore says had moved from near Ngau Tau Kok at some point in the later 18<sup>th</sup> century, are recorded by Collinson as

<sup>2</sup> 紅香爐峰 (Hung Heung Lo Fung) is today the local toponym for what in English is Braemar (properly Bremer) Hill (寶馬山). Quite what Hong Kong Island was called before the Qing Dynasty is more or less anyone’s guess (Tam Kwong-lim at [https://www.mardep.gov.hk/theme/port\\_hk/en/p1chl\\_2.html](https://www.mardep.gov.hk/theme/port_hk/en/p1chl_2.html) - accessed 16.3.2019). The probabilities that it was Hong Kong (香港) are slight with other candidates of varying plausibility being Red River (紅江), Sweet (Freshwater) River (香江) and Fragrant Aunt (the Pirate) (香姑). The first two are reasonable names for the actual place, today Aberdeen, which seems likely to have been called something that sounded like Hong Kong in one of the area’s many dialects and that had four permanent streams flowing into it at Waterfall Bay, Tin Wan, Aberdeen Reservoirs Valley and Wong Chuk Hang Valley.

<sup>3</sup> or maybe 岬. The Romanization is also sometimes Tai Long Head.

<sup>4</sup> Also Nam Tong Hoi Hap (藍塘海峽, originally 南堂海峽) - respectively ‘Blue Pool Channel’ and, rather puzzlingly, ‘South Hall Channel’ – perhaps we are to understand ‘entrance hall’.

<sup>5</sup> The usage is Collinson’s (1845) so was an early one. On marine charts and officially the British initially called this Hong Kong Road or Roads or The Harbour (1844), then the Harbour of Hong Kong (1845), which became ‘the Harbour of Victoria, Hong Kong’ in 1862. Meanwhile the bay off Wanchai was identified as ‘Victoria Bay’. Victoria Harbour (維多利亞港) never seems to have been an official toponym. The Hong Kong Hydrographic Office today uses Hong Kong, China, the Harbour. The author once, now untraceably, came across a claim that the original local Chinese name was Duk Kwan Gong (獨龜港 – Solitary Turtle Harbour).

<sup>6</sup> Initially Romanized variously as Sing-simun Pass, Sing-Shee-Moon, Shing Sze Mun, sometimes Shing Chu Mun - the waterway has never been given an English name. See, for example, **Ross and Maughan (1810), Horsburgh (1827, p.321)**

calling their home “Hoktsuewan,” in today’s Romanization, “Hoktsuiwan.” The first two phonemes are today rendered in characters as 鶴咀, or “Crane’s Mouth (Beak)”. But quite how what Collinson represents as ‘wan’ should be written is moot. Today the official designation of the village is Hok Tsui Tsuen (鶴咀村). It is possible that the ‘wan’ is 灣 or bay, as in Chaiwan or Shaukeiwan, though given the village is perched 125m up on top of a cliff, that is eccentric. Modern toponymy gives the name Hok Tsui Wan (鶴咀灣) to the small, sheltered bay tucked just west of the headland where the University of Hong Kong’s Swire Institute of Marine Sciences now stands.

The origin of the local toponym is obscure. Here, as with so many Hong Kong toponyms, the illiteracy of the overwhelming percentage of the indigenous population and the mediation of the recording of names through western topographic and hydrographic surveyors in the 19<sup>th</sup> century, with a focus on what these should be in Chinese characters only emerging in the late 20<sup>th</sup> century, makes discovering the correct indigenous names probably impossible. With Hok Tsui, if the Chinese characters have more than merely a phonetic value (**Barnett 1974, pp.136-159**),<sup>7</sup> then the peninsula was seen as like a ‘crane’s

beak’. This seems unduly poetical, as well as dependent on seeing the peninsula in a bird’s-eye view from the air, as in a representationally accurate western-style map – a manner quite at odds with traditional Chinese cartography, even supposing any local villager had ever seen any sort of map.

The name of the two small islands that terminate the peninsula are a sound guide to what we might call ‘normal’ toponyms in non-literate, subsistence agricultural and fishing communities. They are called Kau Pei Chau (狗髀洲, i.e., dog buttocks island), which can reasonably, if crudely, be translated as Dog’s Bum Islets. In this the islets are typical of such local toponyms all over the world where simple designators like ‘Home Rock’, ‘West Point’, ‘Cooking Pot Hill’, etc. are the norm. Indeed, we can see exactly that sort of simplicity in the first recorded western name for Cape D’Aguilar.

Before Lt Collinson used his boss’s name in 1844, in 1841 the Royal Navy had already decided on a different one that, presumably, they had heard from their embarked local pilot: Tylong Head (Big Wave Head). That name, seemingly first recorded by Commander Edward Belcher RN,<sup>8</sup> who conducted the first systematic large-

<sup>7</sup> This is sometimes the case with Hong Kong’s coastal toponyms, which often echo older names of the non-Han, Austronesian and minority peoples, who were the original inhabitants of China’s south coast.

<sup>8</sup> Curiously, although he gives directions for passing through Shing Sze Mun from the very first edition of the second volume of his monumental *India Directory* in 1817 until the 6<sup>th</sup> edition in 1852, **James Horsburgh (1827)** never gives a name for the “south-east point of Hong Kong Island.”

scale hydrographic survey of Hong Kong waters in 1841 in HMS *Sulphur*, was used by the world's nautical chart makers for the next 150 years (**King & Master 1861, p.34**).<sup>9</sup>

It is thus at least possible that the elegantly poetic “Hok Tsui” (鶴咀) is what a literate Chinese scribe in the employment of the Royal Navy produced when a non-Sinophone, leave alone Cantonese, Hakka or Hoklo speaking westerner relayed to him what he thought he had heard local people call the place where they lived. Equally, on the evidence of Collinson's notebook that his scribe was fluent only in Fujianese (Fujianese) and Mandarin, even an embarked, literate pilot might have had difficulty in fully grasping how to write what he thought he was hearing his interlocutors say (**Collinson 1844**).<sup>10</sup>

It is possible, accordingly, that the headland area or the village may have gained its toponym from a small fishing settlement in the sheltered bay where the Swire Institute of Marine Sciences now stands. “Crane folk”, 鶴佬 (Hoklo), is one of the names of Hong

Kong's water based Hoklo minority.<sup>11</sup> For the same sub-group in Hakka (客語), the language of the villagers Thomas Bernard Collinson will have met, we have Fok-ló (福佬), “Fujian folk”, at least possibly explaining the first phoneme of a misunderstood toponym. Perhaps the villagers actually called their settlement something else but noted to Lt Collinson, who misunderstood, that down where he was headed was a bay and waters where Hoklo fisherfolk fished and sometimes hauled ashore.

That muddles occur as a place shifts from its unwritten early history into the glare of the literate modern world is perhaps most patently revealed by the waterway today called Sheung Sze Mun (雙四門). Transliterated this gives us Double Four Channel/Passage/Pass. As it happens the general course in a westerly direction through this deep but narrow channel is, using the modern 360° notation, 240°(T).<sup>12</sup> So is ‘Double Four’ some sort of abbreviated Cantonese rendering of the western course spoken ‘Two Four Oh/Zero’? The probability is that it is not. For what someone will likely have heard back in the day will have been the traditional Chinese ‘needle path’ (*zhēnlù*, 針路) using Chinese compass headings – in fact the hours of the day. The traditional heading equivalent to the western 240°

<sup>9</sup> It got firmly entrenched with the publication of the 3<sup>rd</sup> edition of the British Hydrographic Office's *China Pilot* (**King and Master 1861, p.34**)

<sup>10</sup> We know from the notebooks of Lt T.B. Collinson RE's brother, Captain Richard Collinson RN, as well as other, similar sources, that Royal Navy surveying vessels carried literate Chinese assistants. The assistant in Richard Collinson's case seems only to have spoken Fujianese and Mandarin fluently.

<sup>11</sup> 河老 – Ho Lo or 學老 - Hok Lo.

<sup>12</sup> (T) betokens a true rather than magnetic (M) or compass (C) – the last a course corrected for magnetic variation and ship's compass deviation.

was, in Mandarin, *shēnshí* (申時), and those characters, in Fujianese/Hokkien, would sound like 'Sing Si', which suggests that somehow a misleading Romanization of something heard from a Hokkien speaking informant has led to the strangely hybrid modern Cantonese variant.<sup>13</sup> Perhaps the waterway should properly be Romanized in Cantonese as San Si Mun (申時門).

All we can say, therefore, is that the toponymy of the area we now call variously Cape D'Aguilar or Hok Tsui (鶴咀) is, like much of Hong Kong's indigenous toponymy, of uncertain provenance and accuracy but as such is reflective of aspects of the area's history. As we can see, therefore, even that uncertainty is itself a tentative route into the early history of how an isolated indigenous coastal place on the south eastern tip of Hong Kong Island began to become the multi-layered place it is today.

## BECOMING A MODERN HONG KONG PLACE 1: A LIGHTHOUSE

Thirty years after Lt T.B. Collinson's map making, the Cape's important position led to the seeming space he had visited for surveying purposes start

to become a developed place in colonial Hong Kong's modern story. By the 1860s the increasing maritime traffic of the young port faced a problem. If a ship arrived at night, Hong Kong's tricky, rock strewn entrances meant that the only safe recourse was to do what was called 'lie off' or 'lie to' overnight and wait until daytime to find the way into harbour (**Government of Hong Kong 1873 para 8**).

The last half of the 19<sup>th</sup> century was the great age of lighthouse building on China's coast and around the world. Lighthouses (or simply "lights") mark things like entrances to harbours, dangers ships must avoid and important turning points on major shipping routes. Hong Kong needed its own lights to help the mariners at night find their way to safety.

The initial review of this problem by John Reed, Master RN of the survey ship HMS *Rifleman*, which had been commissioned in 1867, was reported by the Harbour Master in 1887 to have recommended that lights be built on Waglan Island (橫瀾島), on Gap Rock (蚊尾洲) and on Green Island (青洲). That way the southern approaches from Singapore and the south west would be covered by Gap Rock, with Green Island to direct vessels towards the western entrance to Victoria Harbour. Equally, Waglan Island would cover the approach from the east and southeast leading ships to the entrance to Tathong Channel, whence to the eastern entrance to the harbour at Lei Yue Mun (鯉魚門).

<sup>13</sup> In the first truly modern chart of Hong Kong waters, *Ross and Maughan (1810)* and as with most of the charts of the south coast of China Ross and Maughan surveyed, someone has attempted to give Chinese characters for toponyms recorded only in Romanized form with often hilarious results. Sheung Sze or San Si Mun is given as 生思門, which is gibberish.

The problem was that the British only occupied the small area of Hong Kong Island. Negotiations with the Qing authorities for lease conditions to build and operate lights on Gap Rock and Waglan Island went nowhere (**Government of Hong Kong 1887 para 8**). Accordingly by the early 1870s it had become clear that the only place the British colonial authorities could build lighthouses was on territory indisputably British controlled. Hong Kong's first lighthouse was therefore lit on Cape D'Aguilar on 16<sup>th</sup> April 1875, marking the very important eastern entrance to Victoria Harbour.<sup>14</sup>

The tower of the lighthouse still stands today – it was declared a monument in 2005<sup>15</sup>. – though the interior and the light on top are greatly changed from how it originally was, especially when it lost its characteristic lighthouse lantern in 1905 (this can still be seen on Green Island's lighthouse, to where it was moved).<sup>16</sup> The change in status when the structure ceased being a light

also resulted in a change in name. What had been Cape D'Aguilar light, reduced to a simple tower, gained the new Romanized, but today forgotten name of “Song Siu” or “Song Chu Tower”. The Chinese characters for this are unknown,<sup>17</sup> but the name may have been taken from a submerged rock close under the cliffs east of the lighthouse, which appeared on the 1901 British Hydrographic Office chart as “Song Siu”, though on one later chart this became “Song Sui”. The Romanized toponym for the rock lasted through until the 1970s when it disappeared. It can no longer be found anywhere in lists of modern Hong Kong toponymy.<sup>18</sup>

In 1975 Song Siu Tower was equipped with a small, modern light, dwarfed by the tower it sits on but giving the tower back its old name, Cape D'Aguilar (light). An even bigger change also took place at around that time to its surroundings. Sometime between 1975 and the mid-1980s the original quarters for the lighthouse keeper and

<sup>14</sup> *Hong Kong Government Gazette*, 12<sup>th</sup> March 1875, Notice No. 46: Notice to Mariners and *Hong Kong Government Gazette*, 25<sup>th</sup> September 1875, p.409, Notice to Mariners No.70.

<sup>15</sup> [https://www.amo.gov.hk/en/monuments\\_80.php](https://www.amo.gov.hk/en/monuments_80.php) accessed 16.2.2019.

<sup>16</sup> The extinguishing of the light appears in the *Hong Kong Government Gazette*, 21<sup>st</sup> Sept. 1895, p.1041 and its removal to Green Island in *Hong Kong Government Gazette*, 27<sup>th</sup> April 1901, Notification No. 250; the temporary light on Green Island in *Hong Kong Government Gazette*, 30<sup>th</sup> December 1904, p.1971, Notification No.903 and the lighting of the new light using the Cape D'Aguilar lantern, *Hong Kong Government Gazette*, 11<sup>th</sup> August 1905, No.1237, Notification No. 510

<sup>17</sup> Yet another Hong Kong toponym the original of which has been impenetrably masked by its transmission only through Romanization.

<sup>18</sup> Although, bizarrely, not long after Song Siu disappeared, in 1975 the small northward finger of land just north of Bokhara Battery (for which see below) unaccountably became labelled ‘Sheung Sze Mun’, which name it retains on the latest iteration of the Survey & Mapping Office's new GeoInfo digital online map at the time of writing (16.2.2019). Obviously the same name appears not far to the south west in larger letters as the toponym for the channel between Hong Kong Island and Beaufort Island (Lo Chau - 螺洲 (Conch or Spiral Shell Island). Such are the vicissitudes of vectorized digital mapping.

his assistants, along with a small signal station, all of which stood below and to the east of the light and of which no photographs seem to remain, had fallen into ruin and were demolished to build student quarters for the Swire Institute of Marine Science of the University of Hong Kong. Today all that remains of the earlier complex is a stone staircase and some traces of retaining walls.

## BECOMING A HONG KONG PLACE 2: FLAGS, TELEGRAPH AND RADIO

The signal station that was part of the lighthouse from the word go was also a small indicator of the next of the major layers of a multilayered heritage place.

Like most early lighthouses, Cape D'Aguilar had a flagstaff from which it signaled ships using flags in the still relatively new International Code of Signals.<sup>19</sup> They would tell the lighthouse what their ship's name was and where it was going or was coming from.<sup>20</sup> This was very important because for almost half a century after 1875, that's until the wireless radio, invented in the 1890s, began to become standard

on all ships, once a ship was out of sight of land no one would know where it was until it reached the next signal station and 'made its number' – that is, hoisted the flags of its code letters to tell a lighthouse signal station who it was. When ships disappeared, as too often they did, the only way of knowing where to go and look for any survivors was to identify the last lighthouse to which the ship had 'spoken' during its voyage.

If Cape D'Aguilar's prominent geographical position ensured it was the site of Hong Kong's first lighthouse, the same location – and the history of lighthouse signal stations – meant this area occupies just as important a place in the history of telecommunications in Hong Kong. The lighthouse was extinguished in 1896, because the Chinese Maritime Customs had built a new light on Waglan Island in 1893. But because China wasn't Hong Kong, the signal station stayed in place to talk to mariners and to the new Chinese lighthouse. That made sense because in 1872 the first submarine cable had been landed in Hong Kong at Telegraph Bay in Pokfulam, where Cyberport now is, and so Hong Kong was 'wired' and a message from a ship to Waglan, once sent to the Cape D'Aguilar signal station could be rapidly forwarded to its destination.

The signal station was marked for mariners by the old tower without its lantern – "Song Siu Tower". That arrangement continued once Waglan Island became British, following the

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<sup>19</sup> This had been a British initiative in 1857, when frustration with the extant fourteen most prominent codes in use led to the forming of a Signal Committee by the Board of Trade in 1855, who promulgated their Commercial Code, later *The Commercial Code of Signals for the Use of All Nations* (London: William Mitchell (Shipping and Mercantile Gazette Office), 1859), in 1856 – see **Jellie (1999)**.

<sup>20</sup> The code book had a list of major places – ports, straits, headlands, etc. – as well as the code letters of all registered ships.

1898 Convention of Peking, when in 1900 a telegraph cable was laid landing at Cape D’Aguilar connected, initially via the signal station, by telegraph to the urban area (**Government of Hong Kong 1902 p.847 para 18**). Five years later the link from Cape D’Aguilar to Central was converted to a telephone line, for which forty-two iron poles were erected to carry the telephone wires between Cape D’Aguilar and Shaukeiwan (**Government of Hong Kong 1905 p.518, para. 19**).<sup>21</sup>

From the perspective of the government, the signal station was closed down by the Harbour Master in 1905 at the point when the old lighthouse’s lantern, by now disused for nine years, was sent to Green Island. However, there is clear evidence – buried and muddled as usual by civil service obfuscation – that the signal station kept going, save in a new form and operated by the Royal Navy. Curiously there is no direct trace of this in the Hong Kong government records, only a note in the Report of the Director of Public Works nearly two years later that “...telephone lines were constructed placing the Naval Yard in direct

communication with the signal stations at the Peak and at Cape D’Aguilar, which by arrangement with the Naval Authorities, are now manned by expert naval signalmen.”(**Government of Hong Kong 1907 p.708, para 64**). This new departure leads us on into the complex story of the world of modern communications and the multilayered ‘place’ that we are looking at. What next happened at Cape D’Aguilar leads off in two directions – civilian and military.

Although radio was first invented in the 1890s, it wasn’t a sufficiently effective and developed technology to be widely used. Early adopters, of course, were the military, and we have a clear record that by 1901 eighteen Royal Navy ships on the China Station (headquartered in Hong Kong) had been fitted with radio (**Royal Navy 1901 Section IX, p.68**).<sup>22</sup> In 1903 radio facilities for the Royal Navy’s China Station were being considered and the very effective use of radio by the Japanese fleet in the Russo-Japanese War 1904-1905

<sup>21</sup> The first telephone in Hong Kong is claimed to have been installed in 1877, with a public service being introduced in 1882 - [https://tel.archives.ofca.gov.hk/en/telecom\\_fact/milestones/main.html](https://tel.archives.ofca.gov.hk/en/telecom_fact/milestones/main.html) accessed 16.2.2019. There is no evidence of any telephone installation before a line connecting R.G. Alford, Architect with the trading house of McEwen, Frickel & Co. is reported in October 1881 (*The China Mail*, 21<sup>st</sup> October 1881, p.2), although the police force had begun agitating for a telephone system since 1877 (**Government of Hong Kong 1878 para. 7**)

<sup>22</sup> All the ships are named at [http://www.dreadnoughtproject.org/tfs/index.php/British\\_Adoption\\_of\\_Radio\\_Communication](http://www.dreadnoughtproject.org/tfs/index.php/British_Adoption_of_Radio_Communication), accessed on 16.2.2019 and were: HM Ships *Endymion, Arethusa, Barfleur, Glory, Goliath, Albion, Blenheim, Eclipse, Cressy, Orlando, Argonaut, Astraea, Aurora, Dido, Isis, Pique, Talbot, & Terrible*.



accelerated planning.<sup>23</sup> By 1905 the Royal Navy and the British Colonial Office had taken the first step and although the evidence indicates that a radio station installed that year was Royal Navy operated, it also suggests this was under the aegis of Britain's Colonial Office, which may explain the seamless shift of land use between 1905 and the closure of the Harbour Master's Office's civilian signal station, and its instant re-emergence as a wireless station operated by the Royal Navy, without the matter ever emerging in the paragraphs dealing with the transfer of lands to military and naval use.<sup>24</sup> Perhaps this is also why the installation seems never to have been referred to as a wireless station, only as a signaling station, though how long it was in operation is unclear.

One of the uses of the Royal Navy's radio system over the next few years, which was also revelatory of the effect of land masses on radio propagation, was by anti-piracy patrols in the Pearl River delta. A report on this work, which involved setting up land radio stations initially at Danes' Island and in Guangzhou proper, and later one at

the Bogue Forts (虎門炮台), four in the West River, two in the East River and two in the North River, suggested that the patrolling naval ships worked only with HMS *King Alfred*, the flagship in Hong Kong (**Royal Navy 1908 pp.48-49**).<sup>25</sup> However, we do know that the land station at Cape D'Aguilar was working in 1906 when a government report on the devastation of that year's Bingwu typhoon mentioned in an aside that "HMS *Tamar*'s signal log shows that Torpedo Boat No. 38 was alongside at 8.5, under orders to proceed to D'Aguilar wireless telegraph station" (**Government of Hong Kong 1907b**).<sup>26</sup>

## AN ENTR'ACTE: HOK TSUI VILLAGE ACTS AGAINST PIRATES

If most of the mileage being made in transforming the Cape D'Aguilar area from a remote, small subsistence agricultural settlement to part of modern colonial Hong Kong was being made by the colonial authorities, the villagers were also at work.

It is not clear exactly when but at some point in the last half of the 19<sup>th</sup> century, possibly in the decade or so before the lighthouse was built, the villagers at Hok Tsui felt sufficiently insecure that they decided they needed some sort of protection. The three story, granite

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<sup>23</sup> Report of Inspection of Marconi Company's Works and Wireless Telegraphy Stations, 1903, para 6, p.116 and 13, p.117 at <http://www.rnmuseumradarandcommunications2006.org.uk/CommsColRight/WW1%20WT/1903/1903.htm> accessed on 16.2.2019. The use of radio in the Russo-Japanese War was a staple of the newspapers in 1904 and 1905, a typical round up being an editorial, *South China Morning Post*, 18<sup>th</sup> April 1904, p.4

<sup>24</sup> *South China Morning Post*, Apr 29, 1905, p.5

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<sup>25</sup> The *King Alfred* was China Station flagship from 1906-1910.

<sup>26</sup> *Supplement to the Hong Kong Government Gazette*, 22<sup>nd</sup> March, 1907, para. 15.

faced watchtower tower they then built at the eastern end of the village does not appear on Lt T.B. Collinson's 1845 map, which shows only two or possibly three houses. It therefore post-dates 1845 (**Volonteri 1888**).<sup>27</sup> The present tower includes reinforced concrete and steel framed windows, which may have been 20<sup>th</sup> century improvements or part of the original structure, so the date of first construction is uncertain and local memories are vague.<sup>28</sup> The best we can say is that the construction date was between 1865 and 1915.

The village also had mixed fortunes, such as one can work out from vestigial data. The census records, not by any means reliable, suggest that in 1856 the village had 37 inhabitants and that in 1911 it had 39.<sup>29</sup> In between its people were counted in with either Sheko or Stanley, so whether at some stage it became significantly more populous we cannot readily tell, although the data for neither Sheko nor Stanley fluctuates markedly over this period. In

the 1890s there were ten boys in Hok Tsui's small village school, which was a doubling of the five male children recorded in the village in 1856.<sup>30</sup> The government village rent roll only records one lot until 1921, thereafter it jumps to 181 until 1928 when it rises to 182, thereafter declining steadily to 123 in 1940. How to interpret that data is moot, but it argues a fairly small village with dispersed land holdings that did not much grow until greater economic opportunity in the urban area by the end of the 19<sup>th</sup> century. At that point, although probably many villagers actually lived and worked in the urban area, they were careful to register their rights to land holdings when that became an issue, which might explain the sudden rise in the rent roll in the 1920s. Given the harsh marginal land surrounding it and a not wholly perpetual water supply, the limits to growth without the developed urban backing are not surprising.<sup>31</sup>

The village is still quiet, though a more recent, post-1950s 'squatter' development, labelled on maps Lower Hok Tsui Village, now straggles down at various points below the access road towards the cliff top. Some of the houses have attracted improvement and

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<sup>27</sup> Volonteri's 1866 map shows no settlement at all, though that is not indicative, it is shown with perhaps 3 or four houses on Stanford's 2<sup>nd</sup> to 1 mile (Volonteri 1888). The 11th October 1895 Ordnance Map, an update of Collinson, shows no buildings, only fields. The War Office, Ordnance Survey Department map of 1913 based on a 1909-1910 survey shows only two buildings, neither clearly the tower.

<sup>28</sup> The watch tower was listed as Grade II on 24<sup>th</sup> June 2010 as No. 495 in the AMO's list of 1,444 listed buildings - <http://www.aab.gov.hk/form/AAB-SM-chi.pdf> accessed on 19.2.2019.

<sup>29</sup> *Hong Kong Government Gazette*, 12<sup>th</sup> April 1856, vol. 1, No. 41, Govt. Notification No. 45 and *Report on the Census of the Colony for 1911*, No. 7 of 1911, Table XIV, p.103.

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<sup>30</sup> *Hong Kong Government Gazette*, 24<sup>th</sup> June 1893, Table VI, p.643.

<sup>31</sup> The village water supply was once served by a fairly permanent spring – i.e. one that only dried up in the driest years – high up on Hok Tsui Mountain at around 210m where a small stream that flows down east of the village has its source.

there is a regular flow of cars along the narrow road. However, the original village has clearly lost inhabitants – there are empty and ruined buildings and abandoned fields – and manifestly lacks investment in significant improvement of its building stock and facilities.

As the peninsula's earliest 'place' and hence, from a heritage point of view, its oldest settlement, it has a sadly neglected feel.

### **BECOMING A HONG KONG PLACE 3: A WARTIME LOOKOUT, A FULLY-FLEDGED RADIO STATION AND A RADIO BEACON**

Recapping the story so far, first there was nothing but a very marginal settlement and otherwise open countryside and coastline maybe with names, maybe not. Next came a mapped and charted area with 'local' names of uncertain origins and therefore correctness along with ascribed British colonial toponyms. Then comes a lighthouse that only works for 21 years before it becomes a topless tower with a signal station and flagstaff. Five years after it loses its status as a lighthouse, the first submarine telegraph cable comes ashore at the Cape, directly linking Waglan Island with Cape D'Aguilar and then by telephone line to the urban area. Shortly afterwards, the marine signal station closes down but immediately carries on as a naval communications centre. Then, ten years

later, one year after the outbreak of the First World War, a civilian radio station begins work. At the same time the now disused signal station gained a new tenant: a lookout and signal station, connected to the radio station, manned by Royal Navy and British army personnel.

Government is always rather slower to get in on an act, but what we today call the electromagnetic or radio spectrum was quickly seen by government to be something to be controlled, just as many governments today think the internet is something they should control. Controlling the means of communication means that if you want to or have to, you can control what is communicated. After a lot of preliminary activity beginning in around 1902, in 1904 the imperial government in Britain passed the Wireless Telegraphy Act, which granted control of radio waves to Britain's General Post Office – so by extension all British Empire post offices like the Hong Kong system – which became the authority that licensed all senders and receivers and punished those who used radio equipment without a licence.

Meanwhile, keeping up with the need to make sure no one interfered with the communications of the Royal Navy, the Hong Kong government passed its Wireless Telegraphy Ordinance as No. 7 of 1903. That made it clear that the issue was all about control as, with matters colonial, it so often was. An actual radio station at Cape D'Aguilar,

operated by the Post Office, did not go into service until 7<sup>th</sup> July 1915. The station, with its two buildings and two, 203' tall, 2' internal diameter tubular steel masts, 400' apart, was located fairly much where the main structures of today's PCCW station still are.<sup>32</sup>

Initially the signal station was manned by people called "Post Office (Naval Section) personnel" – i.e. trained Royal Navy personnel on secondment to a special part of the Post Office. Their job was to transmit and receive radio telegrams and semaphore telegrams to and from passing vessels. A wonderful blend of the old – semaphore – and the new, radio. Once the First World War was in full swing the Royal Navy personnel were joined by British army personnel to help keep a watch out for the enemy shipping that didn't exist. The look out and signal station stayed in use until at least 1919.<sup>33</sup>

Post-war the radio station grew in size as radio became a more widespread system of ship-to-shore communication, but it stayed a public sector institution. In 1930 a new building was added to the original station and in 1940 there was a further extension. By the mid-1930s it was working on 33 frequencies using twenty-one different call signs, all variants of Hong Kong's set of VPS, ZB, ZC and ZE (**Government of Hong Kong 1928 sect IV, pp.F6 & F7**).

More interesting, the radio station also became Hong Kong's first example of a marine and aviation radio direction finding service, a technology that had begun life in the 1880s but only become a viable aid to navigation with the invention of the Bellini-Tosi direction finder in 1909 and its full development after 1920.<sup>34</sup>

During all of these developments actually getting to Cape D'Aguiar had been a problem itself. Until 1929 the only road communication had been a just-about-drivable track. But from 1929-1933 a proper 10-foot wide road was put in.<sup>35</sup> That was a reflection not just of the need for better land access to a fast growing radio station. It was also a sign of the times. Tensions in the region were getting greater and greater and it was clear to British defence planners that the new enemy was Japan.

## BECOMING A HONG KONG PLACE 4: THE GUNS ARRIVE

The First World War, like all wars, had put technological development into fast forward mode. Air travel and aerial warfare had suddenly moved from quaint developments to the forefront of technical change. Naval warfare had developed massively, beginning

<sup>32</sup> *South China Morning Post*, 18<sup>th</sup> May 1914, p.7, 25<sup>th</sup> June 1915, p.3, 15<sup>th</sup> July 1915, p.3, 16<sup>th</sup> July 1915, p.3.

<sup>33</sup> <https://gwulo.com/atom/19423> accessed 16.3.2019

<sup>34</sup> Notice to Mariners No. S65, *Hong Kong Government Gazette*, 14<sup>th</sup> February 1930, p.89.

<sup>35</sup> *Hong Kong Government Gazette*, Notice No. S20, January 1929, tenders invited for "10' width path to Cape D'Aguiar Wireless Station (1<sup>st</sup> section)".

with the launch of Britain's HMS *Dreadnought* in 1906, and the coming into service of the first effective, ocean going submarines just before the First World War. Guns swiftly developed in range and hitting power. The maximum range of the largest land and naval guns in 1900 had been about 13km reaching 15km by 1906. But the pressures of the First World War meant that by the 1930s the longest range 15" guns could throw a 0.9 tonne shell 30km. If the hitting power of guns had greatly increased, the armour ships used to protect themselves had also been improved by the experiences of war.

Put it all together and the result, in the 1936 Defence Review of how Hong Kong could be defended against the increasingly threatening new enemy with more heavily armoured ships and bigger, harder hitting guns, meant a wholesale change in Hong Kong's system of coastal defence. What was to happen was to have four 'layers'.<sup>36</sup>

First, Hong Kong's defensive perimeter was to be pushed outwards by moving some existing gun emplacements and constructing new ones. Second, the perimeter was to be 'thickened' so that any attacking enemy could not only be engaged early at long range, but could be continuously bombarded as its forces got nearer. That meant having additional, intermediate and close-range guns in the coastal defence mix.

At the shortest ranges, it meant having fortified locations (called pillboxes) backed up by searchlights to help them identify targets in the dark, which could fight off any invading force that got close enough to the coast to threaten a landing.

The fourth layer looked upwards. As noted, the First World War had massively changed the whole nature of warfare with the fast development of reconnaissance, bomber and fighter aircraft. It followed that both vital infrastructure – let's not forget that by the late 1930s Cape D'Aguilar, with Hung Hom and Victoria Peak, was the location of Hong Kong's most modern and most important long distance communications – and the defences necessary to hold an enemy invasion by sea at bay needed defence from aerial attack.

We can see all of this happening at Cape D'Aguilar during the 1930s. In the first layer, the two 9.2" guns that had been at Pottinger Battery at the foot of Devil's Peak were moved to a new location just north of the old Cape D'Aguilar Lighthouse. The new location was called Bokhara Battery and was manned in 1941, not long after it had been completed, by the 8<sup>th</sup> (Coast) Regiment's 30<sup>th</sup> Coastal Battery under Major Cecil Templar RA. That was the long range component that, with its Mk. X 9.2" guns, threw a 170kg shell nearly 27km at maximum possible range at a rate of about one shell every minute for each gun.

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<sup>36</sup> The best exposition of these complex developments is **Kwong and Choi (2014 Chs. 5-7)**.

For closer range work, set up on the hillside of Hok Tsui to the west of Bokhara Battery and manned by gunners of 1 Battery of the HK Volunteer Defence Corps under Capt. G.F. Rees was Cape D'Aguilar Battery with two 4" naval guns each of which could fire its 14kg shell at close range, or out to the maximum range of around 13.5 km. Around Cape D'Aguilar itself, where there are only two small beaches, but otherwise rugged cliffs and rocks, there were no close in defence pillboxes for the good reason that it was very unlikely any enemy would consider landing there, though down below Hok Tsui Tsuen on the western tip of the peninsula, there was a combined pillbox and searchlight emplacement watching over the entrance to Tai Tam Bay.

To cope with the potential threat of an air attack, higher up the hillside above the Cape D'Aguilar Battery were two 3", mobile anti-aircraft guns – or possibly Bofors and Lewis guns (the jury is out) – manned by 18<sup>th</sup> AA Battery under Capt (temp. Major) J.C. Rochefort Boyd RA.<sup>37</sup>

So, in addition to our village, its watchtower, a lighthouse, a signal station, a lookout, a radio station, a radio direction finder and a new motor road, by the dreadful moment of Hong Kong's surrender on Christmas Day, 1941, we also have heavy, medium and anti-aircraft artillery emplacements.

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<sup>37</sup> For the disposition of personnel, the best resource remains <http://www.hongkongwardiary.com/>

## BECOMING A HONG KONG PLACE 5: ADDED TOPONYMY

With the arrival of the 9.2" battery we also have a new name: Bokhara. Where does that come from?

Obviously, as a name, it belongs to a wonderful and very ancient city in Central Asia (today Bukhara (ارخب) in Uzbekistan), 布哈拉 in modern Chinese and 捕喝 in high Tang Dynasty days) that grew rich as a central emporium on the original Silk Road from China to the West.<sup>38</sup> But was this a name given solely by the British military and reflective of a battle honour of an artillery regiment and nothing to do with the history of Hong Kong?<sup>39</sup>

The actual answer is very much a Hong Kong story. We can get a small clue as to how the battery got its name from that interim name of the Cape D'Aguilar lighthouse tower once it had lost its light in 1896: Songsiu Tower. Because just as Song Siu Rock – an underwater danger just north of the lighthouse – seems to have given its name to the tower, when it stopped being a lighthouse for eighty-one years, so another underwater hazard

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<sup>38</sup> One of Bukhara's many names is Madinat Al Tujjar, which means the City of Merchants.

<sup>39</sup> This would be a quite reasonable conjecture, the Royal Artillery often giving such names to its batteries as with the 7 (Sphinx), 8 (Alma), 23 (Gibraltar 1779-1783), 79 (Kirkee) and 148 (Meiktila) Batteries of 29 Commando Regiment RA, familiar to the author from his days as a Royal Marine.

gave its name to the new gun battery that opened for its aggressive business in late 1940 or early 1941. Bokhara Rocks.

It's a long story – too long for here – but it links the British Empire's principal passenger liner and mail transport shipping company, the Peninsula and Oriental Steam Navigation Co. Ltd. (鐵行輪船公司), and a maritime accident to one of its vessels on the ship's maiden voyage in 1873. The SS *Bokhara* was leaving Hong Kong on its way back to Britain when it 'found' a rock that was not on the chart that Commander Belcher had rather hastily surveyed when he named Cape D'Aguilar Tylong Head in 1841. The ship nearly sank, though fortunately managed to turn around and steam onto a beach near the Kowloon Docks in Hung Hom before it did. It was quickly repaired and went back into service until, tragically, it was wrecked on the Penghu Islands in a typhoon in 1892 on its way back from Shanghai, drowning most on board, including almost all of the Hong Kong Interport cricket team.

In the time-honoured way of the sea, the rock that nearly claimed the *Bokhara* was named after it – as it still is if you look at an older chart<sup>40</sup> – and in turn the

new gun battery called itself after the rock out over which its guns directly looked and, in anger, would fire. So, that's yet another layer to the Cape D'Aguilar palimpsest – another link to the world of the sea and sea trade, and an indirect link to the Silk Road.

And then came the occupation and, eventually, the return of the British and peace.

## BECOMING A HONG KONG PLACE 6: NEW LAYERS AND NEW USES

After the war very little of the military side of Cape D'Aguilar went back into operation. Instead of coastal defence guns, the military presence became the Royal Air Force, which ran a small radar station – much as they did with Mt Davis – it seems by transforming at least one of the old 9.2" gun emplacements into a radar antenna installation.<sup>41</sup> The old government Post Office run radio station was handed over to the British empire-wide operation that had emerged in the 1920s, after a period of consolidation of many separate companies, as a massive, world wide operator of submarine cable and radio stations called Cable & Wireless. That's why you can see at Cape D'Aguilar an echo of China first getting 'wired' in the 1870s when

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<sup>40</sup> In common with most of the historically illiterate – and ideologically partisan – present HK Government's products, the most recent charts have 'cleansed' themselves of this unacceptable 'colonial' hangover, so whilst the rocks are charted, they have no name. You can see this if you load the new eSeaGo app from the Hydrographic Office and the

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Marine Department of the HKSARG - <https://www.hydro.gov.hk/eng/eseago.php> accessed 16.3.2019

<sup>41</sup> <https://gwulo.com/raf-cape-daguilar> accessed 16.3.2019.

the, originally Danish, Great Northern Telegraph Company (大北電報公司) first brought the electric telegraph to China. Because the ‘first mover’ had that name, Cable & Wireless inherited it as its Chinese name, so on an old Cable & Wireless Building in the compound where a modern fibre optic cable comes ashore, you can still see a sign with 大北電報 (Great Northern Telegraph)! The area was for some twenty years closed to anyone except those working at the military installation or radio station.

The next layer of the complex place we’re looking at began its brief, ten to twelve-year life in around 1966. It was about then that HKU got its foothold on Cape D’Aguilar, a foothold it has kept right up until today. The author of this was the then Chair of Engineering at HKU, Professor Sean Mackey. One of Professor Mackey’s research interests was the engineering of high buildings and how they should best be designed to cope with the very strong winds Hong Kong gets when a typhoon blows in. These were days when wind tunnels were very large and very expensive and used almost entirely by the aeronautical industry. HKU didn’t have the space or the money for a wind tunnel – back in pre-computer, pre-digital days much larger than such a facility today – so Professor Mackey decided to recruit nature. Government granted a site right at the tip of Cape D’Aguilar below the lighthouse and a strange ten-storey

building was put up on a concrete plinth with, to the east of it, four huge pylons carrying anemometers to measure wind speeds.<sup>42</sup> This was the comparatively short-lived Centre of High Buildings Research. All that remain today are some of the concrete bases in which the feet of the anemometer towers stood.

In the meantime the Royal Air Force had given up their fighter control radar station, which could be better managed from Waglan Island and, with the rise of satellite communications, the role of maritime radio stations began very rapidly to decline.<sup>43</sup> Cape D’Aguilar became Sleepy Hollow and all the signs of its busy and complex past began to get taken over again by nature.

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<sup>42</sup> Published references to this exercise are hard to find, but see the obituary for Professor Mackey, *The Irish Times*, 2<sup>nd</sup> October 1997 at <https://www.irishtimes.com/opinion/professor-sean-mackey-1.112027> accessed 16.3.2019 and Sean Mackey’s encomium on the presentation of his Honorary Doctorate at HKU at [https://www4.hku.hk/honggrads/index.php/archive/graduate\\_detail/202](https://www4.hku.hk/honggrads/index.php/archive/graduate_detail/202) accessed on 16.3.2019. The Faculty of Engineering has produced two unpublished histories that cover the life of the Centre of High Buildings Research: J.A. Clark, “The History of Engineering at Hong Kong University from 1912 to 1988”, in “75 Years of Engineering”, Faculty of Engineering, University of Hong Kong, 1988, and “Engineering at HKU: 90 Years of Dedication”, Faculty of Engineering, University of Hong Kong, 2002. For an image of the structure see <https://www.swims.hku.hk/history/>, p.2, 1960s accessed 16.3.2019.

<sup>43</sup> Hong Kong’s is still open twenty years after most of the world closed theirs down, probably for much the same reason that it took twelve years to get it built and open in the first place. Bureaucratic inertia coupled, these days, with oligarch involvement – it’s real estate after all – and probably mainland security interests are the probable explanations.



## CAPE D'AGUILAR: TODAY'S MULTILAYERED HERITAGE PLACE

Since the demise of the high building research station, there have been new leases of life for this long used space. In 1975 the Marine Department, in the full flush of a major campaign to provide light beacons all over Hong Kong waters, decided that the old Song Siu Tower could again become a light. That's why, perched on top of an 1875, granite block lighthouse tower you can now find a late 20<sup>th</sup> century medium power beacon (flashing every 15 seconds, range 20 miles, as with the original) installed a century later. Below the light, where its lighthouse keeper's cottage, lookout and signaling flagstaff once stood only the staircase remains. In the place of the demolished structures of which no trace remains are the new student quarters for HKU postgraduate students working at the Swire Institute of Marine Sciences (SWIMS).

SWIMS itself – which also built some staff quarters a little further west down the access road to the student quarters and the lighthouse – began life as the Swire Marine Laboratory within the Faculty of Science. The present building was begun in 1989 and opened for work in 1990. It got its present name in 1994, when it also expanded a bit. It is probable the building was constructed either on, or on the demolished site of the previous

high buildings research unit platform.<sup>44</sup>

Two years later the sea around Cape D'Aguilar, for all the years of this narrative so far a mere spectator of the events on land, gained recognition when it was declared one of Hong Kong's very few and very small Marine Reserves where no fishing or any other sort of predatory or destructive activity is allowed.

That focusses our minds – and eyes – briefly on the glories of Cape D'Aguilar simply as a physical location – a natural space. It has stunning natural beauty – including the exciting sea arch right through the peninsula below the staircase leading from SWIMS to the student quarters – as well as the bird life and vegetation typical of the more rugged parts of our coastline. Here too there is heritage, if we look observantly, in the 'exotic' Norfolk pines that were brought from the eponymous island in the Tasman Sea during the colonial period.

There is also, over the back of the peninsula, below the soaring slopes of Hok Tsui Shan (鶴咀山), the reminder of how fragile Hong Kong's ecology is and how subject it is to constant and largely ignored abuse even within comparatively pristine locations far from the urban area. The deep gully leading away east north east of the entrance to the 'restricted area' of the radio station drops down to a beach

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<sup>44</sup> For the history of SWIMS see the previous footnote website reference.

fronting a small bay aptly named Lap Sap Wan (垃圾灣 – Garbage Bay) (WWF 2014). Each effort to clear it of garbage is followed by the next torrent blown in by easterly winds meaning trying to keep it clean is a constant battle, not to mention the plastic dumped above the tideline that the wind then picks up and drives into the thick vegetation of the hillside above the bay.

Meanwhile, back up the hill, the modern communications world, piggy-backing on the long history of telecommunications at Cape D'Aguilar, was arriving. A new building was constructed between the lighthouse and Bokhara Battery to be a terminal for a late 20<sup>th</sup> century update to the submarine telegraph cable that had arrived at Telegraph Bay (today Cyberport) in 1872.

A WWII power generator bunker for anti-aircraft search lights was located near the peak of the hill, as can be seen from 1963 RC Hunting's aerial photos, but along with many other buildings from that period, the ruins have disappeared beneath thick vegetation.

The heir of the old Post Office radio system in Hong Kong, originally a subsidiary of Cable & Wireless, was the Hong Kong Telephone Company Limited, formed in 1925 when it took over an old company called the China and Japan Telephone and Electric Company. A complicated history followed, which from the point of view of Cape D'Aguilar comes down to the landing of an optic fibre cable

Hon-Tai 2 linking Hong Kong and Taiwan in 1990. That has now been joined by two more: the 1993 APC, a 7516 km submarine cable linking Miura and Miyazaki (Japan), Toucheng (Taiwan), Cape D'Aguilar (Hong Kong), Cherating (Malaysia) and Katong (Singapore), and the newbie in 2016, AAE-1, a 25,000km submarine cable from South East Asia to Europe across Egypt, connecting Hong Kong, Vietnam, Cambodia, Malaysia, Singapore, Thailand, India, Pakistan, Oman, UAE, Qatar, Yemen, Djibouti, Saudi Arabia, Egypt, Greece, Italy and France. That certainly beats the 350 mile range over open water and 200 mile range over hilly country of the first radio station, let alone the data transmission rate of the laboriously tapped out Morse Code signals of that first telegraph cable.

The most recent arrival, and another thoughtless architectural blot in a beautiful area, is the joint Environmental Protection Department and Hong Kong Observatory Cape D'Aguilar Supersite Air Quality Monitoring Station. The new facility (2017) has been built on an older platform, typically obliterating all trace of that platform's past as part of the Cape D'Aguilar 6" gun battery and so another lost, small pointer to the complex history at which we have been looking. The sadness is how an entirely worthy goal – keeping track of ozone pollution – can seemingly only be achieved at the expense of the historical and visual environment. That is a

story with which everyone concerned with heritage conservation is only too familiar.

## CONCLUSION

The story of Cape D'Aguilar is typical of the story of almost any significant piece of built heritage when understood in its full context. It is not the story of a single building. It is the story of a complex whole in a landscape that stretches backwards through time. As it does its ramifying branches lead one off into different domains of the past out of which our present has emerged – shipping, navigation, mapping, war, communications, scholarship and research, toponymy, imperialism and colonialism, public policy and many others. It also leads one off into other timelines and other stories via objects, events, and people that have been involved in its many pasts – the Hakka villagers whose home it has been for at least two centuries, the lighthouse keepers and their attendants and families and the many ships they served, the radio technicians, the sailors, soldiers and airmen (British, Chinese, Indian, Japanese) who served the signal, radio and radar stations, the academics and students who worked on high buildings and those who now work on marine life.

Fully comprehending and following such a complex tale demands that one stretch one's mind to accommodate all sorts of branches of learning from the ballistics of artillery to the

aerodynamics of high buildings in strong winds, from marine biology to lighthouse optics, from the maths of hydrographic and topographic surveying to the economics of the telecommunications industry, from the physics of medium and high frequency antenna design to the logistics of building and sustaining a gun battery in a remote location.

Scattered all over the area are the traces of a past that has either been obliterated – in which case the traces are vestigial – or can still be seen in various states. Many, especially the oldest, are mere remnants fast disappearing under encroaching vegetation. Not a trace seems to remain, for example, of the original buildings and antenna bases of the first, 1905-1920s radio station. Others, like the structures of Bokhara Battery, are in ruinous states, utterly neglected and decaying as year succeeds year. Some, like the remaining antennas of the present radio station, are obsolescent or obsolete and will cease having any purpose in the next few years. Yet is anyone thinking about a sensible plan to conserve this first ever location of Hong Kong's radio world or any examples of the 'black arts' of MF/HF antenna design?

Cape D'Aguilar is a wonderful example of why heritage matters.<sup>45</sup>

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<sup>45</sup> See <http://heritage.hku.hk/hongkong/map> for as yet a very partial effort to map this heritage – the database lists just three out of possibly seven or eight heritage features of the area.

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# **Evolution of the Urban Renewal Institution in the Asian Context: A Comparison between Hong Kong, Singapore, and Taipei**

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## **ABSTRACT**

Urban renewal is a collective process that entails wrestling and cooperation among stakeholders. An urban renewal institution is formed as a rule-structured environment to organize the outcome produced by the interaction between stakeholders. In the meantime, the urban renewal institution is remodified over time, so as to cope with the capricious challenges, which are continually reformed by global forces among cities' rival conditions and the local emergence of each community's aspirations.

This paper aims to study the institutional approach towards a benign urban renewal, as adopted by three comparable cities: Hong Kong, Singapore, and Taipei. These three cities are comparable because they are all Asian high-density cities that share similar Chinese culture, urban renewal issues, and, most importantly, a rivalry with each other. A theoretical framework has been developed to examine the key

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components that orientate the urban renewal institution. The fundamental urban renewal institution, along with the latest transformation of the three cities, are well-interpreted under the established framework of IAD. It was observed that even though global forces and local needs both enforced substantial interference in the urban renewal institution and planning strategies, the way to achieve an ideal urban renewal is unprecedentedly ambiguous. Therefore, a continual introspection derived from examining other similar cities becomes more indispensable.

## KEYWORDS

Urban Renewal Institution, Comparison, Hong Kong, Singapore, Taipei

## INTRODUCTION

Hong Kong, Singapore, and Taipei are three Asian cities with high population densities that face urban renewal challenges. Over the past four decades, each established statutory bodies to oversee its urban renewal process. The earliest to do so was Singapore, whose Urban Redevelopment Authority has operated as a statutory government body since 1974. Hong Kong's Urban Renewal Authority (URA) was formed in 2001 to succeed the Land Development Corporation (LDC), while Taipei City's Urban Regeneration

Office was instituted in 2004. The establishment of urban renewal organizations and their instituted agendas reflected each government's visions of reshaping its urban area.

Tangibly, urban renewal pacifies the escalating public concerns over the deteriorating state of buildings in the urban environment (**Ho, Yau, Poon, & Liusman 2012**). The government's own involvement in urban renewal is illustrated in the process of densification as an answer to population growth and urbanization (**Yung, Conejos, & Chan, 2016**), where the necessity of such involvement will only continue to increase in the future. Ideologically, urban renewal helps promote a city's competitive image by erasing its repulsive areas and turns it into an arena attractive to outside capital. In the meantime, enabling urban renewal is proof of a municipality's ability to handle the difficulty of it.

In light of the fact that lessons from comparing urban renewal institutions will nourish one's comprehension of policy implementation (**Carmon 1999**), this paper studies the past and emerging approaches to aspired urban renewal by contrasting the urban renewal institutions in Hong Kong, Singapore, and Taipei. With the lessons drawn from comparing their evolution over the years and then focusing on their latest policy stages, a more sophisticated urban renewal institution could be achieved.

## METHODOLOGY

### *Overall Approach*

This paper first discusses the comparability of the aforementioned three cities in the Asian context. Second, a theoretical framework was established to examine the institutional complexity and ensure the comparability between the three objects. Third, a framework was adopted to evaluate the evolution of the urban renewal institution. As what **Hyra (2012)** suggested, “a comparative historical method which assesses the similarities and differences between the old and new urban renewal periods enables a deeper meaning to contemporary urban policies and outcomes”. Hence, this comparative study engages not only the current urban renewal institutions of three metropolis, but the recent changes in the institutions were also taken into consideration. The final part of this paper discusses the evolution of the urban renewal institutions adopted by the three cities.

### *Selecting Cities for Comparison*

Peck argued that, “rich descriptions of individual city-sites substitute for the tracing of urbanization processes across cases and places – a form of methodological isolation which can be likened to an attempt to understand fluvial dynamics by first removing a bucket of water from the stream” (**Peck**

**2014**). As a result, when a study raises the number and scope of a research object from single to a comparison of multiple objects, the complication that originates from methodological difficulty is foreseeable. However, it has also been argued that research efforts tend to overstate the influence of different national contexts on urban governance (**Simpson & Chapman 1999**). In order to reduce the incomparability to an interpretable extent, this paper introduces Hong Kong, Singapore, and Taiwan as the three jurisdictions for comparative study. As **Carmon (1999)** argued, “the similarities in the history of planned intervention in urban areas are partly attributed to the international policy transfer, but to a larger extent, are related to similarities in the socioeconomic and socio-political developments in Western countries”. From an Asian perspective, the three jurisdictions, which share some similarities, are ideal objects of study.

Given the fact that the political economy of a place will determine the nature and content of its urban planning mechanisms (**Ng 1999**), Hong Kong, Singapore, and Taiwan, which were among the first Asian “dragon” economies during the second half of the 20th Century, had similar socioeconomic and urban environments. Recently, the IMD’s World Competitiveness Rankings, which analyse the economic performance, government efficiency, business competence, and infrastructure



availability of each country, disclosed that Hong Kong, Singapore, and Taiwan occupied the top three places in that order in the Asia-Pacific region for 2017 (**IMD World Competitiveness Center 2017**). In view of the prevailing “place wars” climate, “going global” has become the very nature of the Southeast Asian context (**Yeoh 2005**). This prevalent inclination shared by dominant global cities describes the extremely competitive and fertile grounds for an ambitious urban policy with an attempt to increase supply of land, raise competitiveness, seek foreign investment, and enhance employment opportunities (**Uršič & Križnik 2012**). Upon closer inspection with a focus on urban renewal, it has been argued that “contemporary urban redevelopment is a complex process of ‘glocalization’ where more distant and proximate forces collide and have differential influences on producing urban change” (**Hyra 2012**). Considering these parallel tendencies towards competitive edge are shared by the three jurisdictions, their urban renewal institutions have been spurred to a common goal and this makes a comparison between them feasible.

### *Cities as Comparative Objects: Hong Kong, Singapore, and Taipei*

Hong Kong and Singapore both possess rather condensed administrative stratum regarding the urban planning system in compact territories, so the majority of their attention tends to be placed on their dense downtown

areas with less concern focused on the resource allocation among municipalities. The third comparative object, Taipei, as the capital of Taiwan, inherently receives favour from a superior in that extra financial resources and political power are endowed to realize the central government’s desire to turn Taipei into a representative global city. The abovementioned straightforwardness in planning consideration enables the three cities’ urban renewal approaches to be evidently demonstrated. Although each has a different identity that stems from its own background, it can still be primarily regarded as a city-level entity and compared to the others on the basis of city government (**Zhang 2004, p.14**). This simplified identity helps the three objects become commensurate with each other.

## **ESTABLISHING A COMPARATIVE FRAMEWORK**

It was observed during the literature review that the vantage points adopted by scholars in their comparative studies were widely scattered, which explained the difficulty of thoroughly deciphering the urban renewal approach in different regions. As **Dekker & Varady (2011)** pointed out, “it is rather difficult to identify a one-and-only policy approach in each country, since policies tend to develop over time and are perceived differently by each policy group”.

The comparative framework adopted

in this paper was constructed after two tiers of engagement. First, the institutional analysis and development (IAD) framework, established by Elinor Ostrom, was adopted as the preliminary framework to focus on major components. Second, in order to translate the IAD components into the context of an urban renewal institution, a further comparative framework constructed in a sub layer was elaborated on by distilling comparative discourses from the papers that contrasted the urban renewal and planning mechanisms in different localities. A comparative framework that is supplemented by comparative perspectives extracts interpretable discourses on urban renewal.

*IAD Framework*

According to Ostrom, institutions are “the prescriptions that humans use to organize all forms of repetitive and structured interactions” (Ostrom 2005, p.3). Such interaction occurs at all ranges of scales and entities that “individuals interacting within rule-structured situations face choices

regarding the actions and strategies they take, leading to consequences for themselves and for others” (Ostrom 2005, p.3).

Figure 1 illustrates the contour of the IAD framework. In brief, the focus of the IAD framework is the action arena where individuals interact with each other under structured prescriptions. The action arena is affected by exogenous variables informed by the physical environments at that time. Outcomes are produced through interactions among individuals and these outcomes, in turn, affect the action arena. How the outcomes reshape the ways participants interact with each other in the action arena is informed by the evaluative criteria, which are used to examine the performance of the whole institution by scrutinizing the pattern of interactions and outcomes. All of the components discussed in the IAD framework either directly or indirectly affect each other by various means. Eventually, the whole institution is collectively impelled and dynamically reshaped by these components over time.

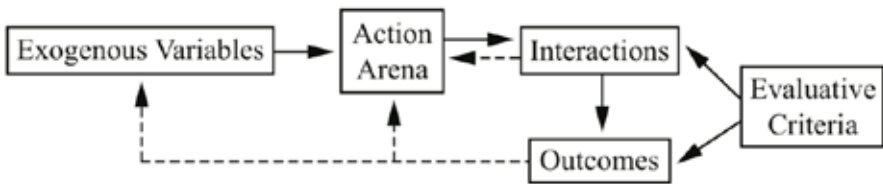


Figure 1. The IAD Framework. Source: Ostrom (2005 p.13).

Moreover, the IAD framework is designed as a multi-tiered system to analyse the institutional complex. Zooming into the composition of the action arena, it could be decomposed into multiple elements in a sub layer and these elements collectively construct the so-called action situation, in which the participants cooperate and wrestle with one another. Ostrom defined this as “an action situation [that] refers to the social space where participants with diverse preferences interact, exchange goods and services, solve problems, dominate one another, or fight” (Ostrom 2005, p.14). **Figure 2** shows the IAD subcomponents that are situated in the action situation.

Even though compounded components nest in multiple layers of the IAD framework to collectively describe the institution, this paper argues that the stakeholders are the dominant impetus that forcefully orientate the whole institution. From an overview of the institutional analysis, the institutions are the underlying rules of the game. As North argued, the organizations, which are structured by groups of individuals from political, economic, social, and educational bodies, serve as agents of institutional change (North 1990, p.5). In other words, the evolution of an institution results from individuals who are situated in that institution so the interaction between the individuals becomes crucial. More specifically, in the context of urban renewal, Verhage (2005b) proposed that the stakes and difficulties of new modes of urban governance are

exceptionally pressing in the urban renewal arena mainly by virtue of the strong interdependence between the stakeholder in the public, private, and civil sectors involved in the urban renewal process. These stakeholders attempt to induce government decisions to benefit themselves and strengthen the interests they represent. Forging alliances with actors from different sectoral bases broadens their range of political support so that the resultant governing coalitions become the means for urban political actors to reframe policy agendas, which, in turn, change the institutional milieu where these stakeholders reside (DiGaetano & Strom 2003).

The framework serves as a map for exploring the theoretical complex. An optimal map that can be used for all purposes does not exist because the details of each level are useful for different purposes (Ostrom 2005, p.8). Considering the substantial influence stakeholders can exert on the institution for the places they reside in, this paper particularly focuses on three pivotal components that directly inform the role of stakeholders in the IAD framework: the *participants*, *positions*, and *actions*. The conceptual explanations of these three components and how they are further translated into the context of urban and urban governance will be discussed below.

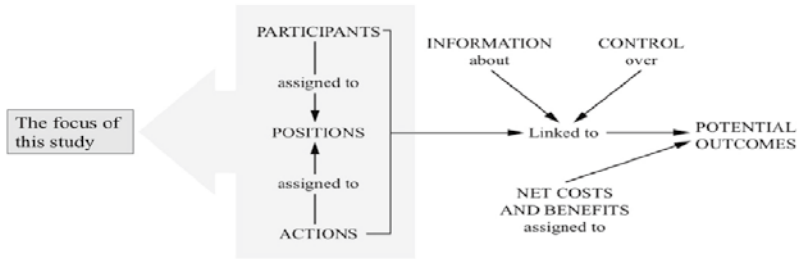


Figure 2. The Internal Structure of an Action Situation and the Focus of This Study. Source: Ostrom (2005, p.33).

*Translating the Pivotal IAD Components into the Context of Urban Renewal*

In order to examine the approach adopted by the three jurisdictions in the urban renewal institution for this paper, the authors investigated the government agencies which directly shoulder the tasks of urban renewal. For two reasons: first, the government agency, as a public servant, represents the government to administratively mediate the conflicts between and redistribute the interests among the stakeholders. Second, the government agency serves as a key stakeholder in urban renewal in that its intrinsic aspiration is to be materialized. Most importantly, the policy agenda is also a medium for incarnating the collective vision of one polity. Hence, it is incorporated in the majority of the comparative studies, as well as in this paper. Within the process of conflict mediation and goal realization in urban renewal, the approach adopted by the government agency brings the underlying urban governance to light.

*PARTICIPANTS in Urban Renewal: the Instituted ORGANIZATIONS as the Mediating Agents*

According to Ostrom, “participants in an action situation are decision-making entities assigned to a position and capable of selecting actions from a set of alternatives made available at nodes in a decision process” (Ostrom 2005, p.38). The collective efforts made by the participants redirect the outcome of the whole institution toward what is aspired to by communities in power.

In their comparison of urban governance and planning policy between Edinburgh and Prague, Simpson and Chapman (1999) suggested that various stakeholders were the emerging key players within the decision-making and policy implementation processes. By establishing partnerships, communities and business engage in a participatory approach outside the formal governmental process to leverage funding for renewal projects and encourage inward investment. Concomitantly, the processes of consultation, participation, and

partnerships entail the reinvigoration of democracy and promotion of social inclusion within civil society (**Cento, Bull, & Jones 2006**). Considering the relationships between different levels of government and the formation of local partnerships are central issues in the field of urban renewal (**Verhage 2005b**) and instituted government organizations are the public agents for mediating the interplay between stakeholders.

*POSITIONS in Urban Renewal: The CAPACITY to Formulate and Impose Rules*

Positions are the set of anonymous slots into and out of which participants move (**Ostrom 2005, p.40**). Possessing this position entitles a participant to take authorized actions in a regulated situation. Besides, positions are the bridge between participants and actions in which the ability to take particular actions is assigned to specific positions rather than to all (**Ostrom 2005, p.41**).

Based on administrative orders, the capacity of an actor describes its ability to formulate rules and impose them on others to coordinate the activities of different actors with command and control (**Verhage 2005a**). A hierarchical power that exists in a network between stakeholders articulates the power relationships within their cooperation, commission, and domination. In urban renewal, the inclined power allocation is further polarized by the overarching disposition of globalization. As **Uršič and Križnik**

(**2012**) concluded from comparing the urban renewal processes in Barcelona and Seoul with a focus on urban management under conditions of global cities competition, a city government that responds to the pressures and opportunities of globalization by implementing a competitive urban policy actually opens doors for stakeholders who can take advantage of the situation and advance their own interests.

*ACTIONS in Urban Renewal: Formulated Urban Renewal PROGRAMME as Concrete Tools*

An action is the selection of a setting or value as a control variable to reflect the aspirations of a participant to affect the resultant outcome of an institution (**Ostrom 2005, p.45**). A manifestation of actions varies by situation. According to Ostrom, in game theory, the set of actions available to a participant at a specific decision point is called a move. The specific action selected from a set of authorized actions by a participant is called a choice. A complete specification of the moves to be taken during a possible contingency is called a strategy (**Ostrom 2005, p.45**).

In view of the market's function through lucrative activities within the interaction of supply and demand, on its own it cannot produce the desired transformations to facilitate any synergetic work. Thus, the public actors now endeavour to make an area

attractive for private investors (**Verhage 2005a**). Similar findings on the government's shift were observed in a comparative study of local governments in Western countries. **Goldsmith (1992)** characterized the public sector as an enabler that emphasises "moving local government away from a concern as a producer of services to one in which local government enables others to produce, either independently or in partnership". The development of an urban renewal programme as a consequence of evolving ideas demonstrates how urban governance translates into concrete tools and procedures to form an environment that is conducive to urban renewal (**Verhage 2005b**). In practice, an urban renewal programme reflects the issues that the formulated urban renewal institution aims to cope with, enables the difficulties in urban renewal to be addressed in a comprehensive way, and works toward the goals the government wants to achieve.

components and the latest changes in recent years will be discussed in sequence. It is worth noting that none of the existing policies or strategies has been deleted by the three jurisdictions. In each case, the approach taken was to incorporate new strategies.

## COMPARATIVE ANALYSIS OF THE URBAN RENEWAL INSTITUTION

Based on the above established framework, the urban renewal institutions of the three cities will be evaluated in the following sections. **Table 1** illustrates the findings on the three comparative objects. These are further organized under the comparative framework to decipher the principal components of an urban renewal institution. Both of their principal

**Table 1:** Comparative Framework of the Urban Renewal Institution

<b>Components</b>	Institutional Analysis and Development (IAD) Framework	<b>PARTICIPANTS</b>
	IAD Components in Governmental Urban Renewal Institution	The instituted <b>ORGANIZATIONS</b> as mediating agents
<b>Hong Kong</b>	Existing	Urban Renewal Authority
	Newly-adopted	District Urban Renewal Forum
<b>Singapore</b>	Existing	Urban Redevelopment Authority and Housing and Development Board (HDB)
	Newly-adopted	consolidated URA & HDB
<b>Taipei</b>	Existing	Taipei City Urban Regeneration Office
	Newly-adopted	Taipei Urban Redevelopment Center
<b>Remarks</b>		The evolution of structural change in urban renewal organization is diverse. Both Hong Kong and Taipei established new entities as counterparts, but Singapore further consolidated the existing organizational structure.

POSITIONS	ACTIONS
The <b>CAPACITY</b> to formulate and impose rules	Formulated urban renewal <b>PROGRAMMES</b> as concrete tools
A statutory body, but is not regarded as a servant or agent of the government. No legitimacy is substantially equipped.	Corporate and Business Plans Deficient transparency in publicized information District-based and demand-led
An advisory platform for public investigation	From pencil redevelopment to district-scale renewal. Spontaneous approach with attention paid to community aspirations.
Both are statutory government boards, the URA closely collaborates with the HDB to revitalize obsolete HDB estates.	Selective En-bloc Redevelopment Scheme Mandatory enforcements that streamline the process of revitalizing HDB flats and estates.
To undertake land planning and the development of land in Singapore with legislated form to support the unceasing growth of a centralized authority.	Remaking Our Heartland Town-scale renewal goal of “an endearing home and a distinctive global city”.
A municipal office branch that manages urban renewal in Taipei without sufficient resources.	Rights transformation, tax reduction, and additional building bulk Induce the community and private sector’s voluntary participation.
Non-profit legal foundation, the implementer of government-led urban renewal.	Government-led Urban Regeneration To ameliorate the excessive reliance on community-led urban renewal with plenty of households involved.
The overwhelming tasks were reallocated with the establishment of new urban renewal organizations, but the centralized authority in Singapore enabled them to handle the excessive tasks within the existing structure.	All three jurisdictions have formulated new urban renewal strategies with growing scales, while the magnitude in Singapore is the most extensive courtesy of its town-scale implementation.



### *Urban Renewal in Hong Kong*

The URA was established under the Urban Renewal Authority Ordinance (URAO) as a statutory body. It is currently in charge of urban renewal in Hong Kong. Before its inauguration, urban renewal was handled by the LDC, which the URA replaced in 2001 to solve the LDC's weaknesses: ineffectiveness in multiple ownership integration, defectiveness in rehousing assistance, feebleness in authority, and insufficiency in manpower and resources for urban renewal (**Adams & Hastings 2001**). Even though the government specifically legislated the Ordinance to endow the duty and authority for urban renewal with the URA, the URAO's Section 3: Establishment of Authority stipulates that the URA "shall not be regarded as a servant or agent of the Government or as enjoying any status, immunity or privilege of the Government". The URA in practice lacks the decisive legal power to handle urban renewal affairs by itself. Rather, it has to acquire permission from the relevant government departments before it could make decisions.

According to the URAO, for each project the URA should submit a Corporate and Business Plan to the Financial Secretary for his approval. The Corporate Plan covers development proposals, awaited projects, commencement dates, and a financial plan for a five-year period. The Business Plan explicates

the information that is listed in the Corporate Plan in greater detail for implementation in each of the years following its initial year. Neither the Corporate nor Business Plan would be revealed to the public due to the average project's commercial sensitivity on the official ground that making public the Corporate Plan "will not be in the public interest" (**Hong Kong Development Bureau 2002**). Only during the formal initiation stage of a renewal project would the URA disclose its profile in an issue of the *Gazette* – after allowing a period of at least two months after the project's commencement. Following the public disclosure, the URA would open negotiations to acquire the land through agreement with property owners. In case it fails to successfully acquire the land, the URA could apply to the Secretary for Development to recommend that the Chief Executive in Council execute the resumption of land. The URA would then cooperate with the private sector to build a joint venture partnership or, alternatively, take action by itself to finish the redevelopment and initiate the subsequent property sales.

An urban renewal strategy serves as a guideline when the URA drafts a five-year Corporate Plan (**Hong Kong Development Bureau 2011**). The Hong Kong Government issues a set of documents to URA in the form of annexes so that the latter could review its urban renewal strategy. The documents elaborate on the planning parameters, financial guidelines, and detailed plans for the 225 listed

redevelopment projects, concept plans for the nine targeted areas, and, most importantly, the sequence of those projects. Again, those documents would be not be initially publicised (**Hong Kong Development Bureau 2010**) and stakeholders in the community would only be informed after the URA publishes the project's details in the *Gazette*. Given the anxieties in Hong Kong's intense real estate market, such a policy decision, which notably lacks information transparency, may be regarded as reasonable for stabilizing the housing market and diluting latent difficulties in land assembly (**Hui, Wong, & Wan 2008**). Yet, such an approach requires the community to yield to a top-down urban renewal process. Hong Kong, as a jurisdiction characterized by high asset mobility and international capital pursuit, vividly exemplifies how the drive to globalization has eclipsed social concerns over urban renewal (**Lai, Chau, & Cheung 2018**).

Concerning the financial constraints, the government offered the URA a series of measures to alleviate the impediments that the former LDC experienced. These included a HK\$10 billion (~US\$1.2 billion) capital injection for its inception, waivers on land premiums, and loans to mitigate its financial burden. But even these financial relief measures were still insufficient for the URA to achieve negotiated acceptances (**Hastings & Adams 2005**). Meanwhile, the URA has suffered from several years

of deficits since its commencement (**Hong Kong Legislative Council Panel on Development 2016**). Also, the government expected it to establish a self-financing urban renewal operation by recruiting the private sector (**Hong Kong Development Bureau 2010**), which the URA itself advocated as a long-term objective (**Hong Kong Development Bureau 2011**). However, the URA has been keen to enlarge the scale of its renewal projects for greater community benefits, which inevitably requires extra resources. Hence, it faces a dilemma. Given these financial constraints and ambitions, urban renewal in Hong Kong has been criticized by those with an overwhelming inclination to exploit the city's development potential and infringe on private property rights (**Lai et al. 2018**). In brief, when the URA has to consider the profit margin and ability of each project to sustain itself, a market-led urban renewal approach becomes the essence of its existence.

### *Changes in Hong Kong Urban Renewal in Recent Decades*

The URA undertook a review of the rationality and effectiveness of urban renewal through two years of consultation with professionals, academics, and a broad public investigation. The results were further translated into a revised urban renewal strategy in 2011. Under the modified strategy, the URA would establish a district urban renewal forum (DURF) as an advisory platform for

each district targeted for renewal. Appointed by the government, DURF comprises members drawn from professionals, Area Committee members, NGOs, business associations in each district, URA members, and government representatives (**Hong Kong Development Bureau 2011**). The Planning Department agreed to provide DURF with secretariat and professional support. The Urban Renewal Trust Fund offered financial assistance to commence renewal studies for informative advice, monitor the progress of project developments, and foster more public engagement as an educational measure (**Hong Kong District Urban Renewal Forum 2011**).

Apart from the institutional modification, the URA recently embarked on several mutually complementary renewal strategies. Demand-led redevelopment is a newly-formulated programme that responds to requests from interested property owners to redevelop their buildings so that the projects are initiated by the community rather than unilaterally waiting for the URA's announcement. Moreover, this voluntary approach reduces the transaction cost within the ownership resumption. The programme was launched in 2011 and the latest prerequisite for qualified applications states that the projects should have the consent of at least 80% of the affected owners on no less than 700 square metres of sites. The accepted projects would be executed under the identical renewal process formulated

in URAO regarding compensation, re-housing, and ownership acquisition (**URA 2017**). On the other hand, a district-based renewal approach was introduced to reverse the prevalent 'pencil' developments (so named because of their building form or shape), which are unable to generate any community benefit to their district in terms of effective land use. Urban renewal is so constrained by the complexity of ownership integration that most projects in Hong Kong could only be sporadically implemented on a small scale (**Hui et al. 2008**). As countermeasures, the URA implemented three new projects in Kowloon City under a novel, district-based renewal approach in 2016 (**URA 2016**). These collaborative projects involved, in total, 11,900 square metres of floor area with 1,440 participating households. The rejuvenation plan comprised an effective road network with an integrated underground communal car park, which was an elegant and practical solution that maintained the street fronts and shops along with covered footpaths.

In summary, several newly-introduced urban renewal strategies could be perceived as counterparts to a conventional top-down renewal approach. First, the establishment of DURF reflects the URA's "People First, District-based, Public Participatory" approach and articulates their attention to community aspirations to a greater extent. Second, a demand-led redevelopment programme entitles

the community to be part of the urban renewal process with identical legal procedures to those of the URA. Third, a district-based approach indicates the URA's resolve to cope with the complexities of ownership and financial risks that may arise from larger projects. Excessive profit-based and uncoordinated renewal approaches dilute the chance to realize sustainability in the urban environment (**Chan & Lee 2008, Lee & Chan 2008**), whereas a district-based approach could be a remedy for the aforesaid disequilibrium.

### *Urban Renewal in Singapore*

Both the HDB and URA are statutory bodies instituted under the Singaporean Government's Ministry of National Development (MND), which is the department responsible for national land use and planning. Under the supervision of the MND, the URA cooperated with other relevant departments to formulate the concept plan, which drew up a comprehensive blueprint for Singapore's land use and transportation for the next 40-50 years with routine reviews every ten years (**Singapore Urban Redevelopment Authority 2018**). The concept plan would be further translated into a master plan to elaborate on the details of permissible land use and density to guide medium-term developments in Singapore. Besides, the URA is also in charge of land use planning, development control, land sales, conservation, and urban planning and

design. As a department that organizes Singapore's holistic urban plan, the URA cooperates with the HDB, whose major function is to build and manage HDB flats (**Chew 2009**), to revitalize obsolete HDB estates.

There are 1.3 million residential units in Singapore, of which one million are HDB flats. These provide accommodation to over 80% of Singapore's population (**HDB 2017c**). Owing to the massive housing stock it manages, the HDB exerts major influence in Singapore's urban renewal. Inaugurated in 1995, its Selective En-bloc Redevelopment Scheme (SERS) is the redevelopment programme for tackling dilapidated HDB flats. The HDB will first announce which HDB blocks have been chosen for SERS, after which a series of measures will be implemented including exhibiting the new developments, assessing the value of selected flats, investigating affected residents' opinions, and compensating them for repossessing their properties. All affected residents are entitled to choose new flats in nearby precincts to allow them to maintain their community ties. Such a sound re-housing system, accompanied by the SERS, has minimised any dissatisfaction that might have arisen from splitting up established community ties (**Yung et al. 2016**). The URA and HDB are entitled to execute SERS which the affected HDB residents must obey. Even though appeal channels are provided under Land Acquisition Act Section 23, affected residents and interested parties

can only appeal against the level of compensation (**Zhang 2004, p.188**).

Urban renewal in Singapore is usually implemented by the joint efforts of the URA and HDB with strong government support. Only those subordinate upgrading programmes that concentrate on minor improvements and maintenance are involved in a polling system, which requires at least 75% of an affected building block's eligible Singapore citizen households voting in favour of the programme (**HDB 2017d**), but the core of redevelopment programme, SERS, must be followed by affected HDB residents. The authorized top-down, compulsory redevelopment programme streamlines the process of revitalizing HDB flats and estates, which further enables the government to transform the affected precinct, integrating it with the overall urban planning framework desired by the Singapore government.

### **Change in the Recent Decades in Singapore Urban Renewal**

The nascent division of the URA is the Urban Renewal Unit, which was instituted as part of the HDB in 1964. After several reorganizations starting in 1974, the URA became independent of the HDB and has gone on to fulfill its role as a greater statutory government board supervised by the MND. The URA has gradually assumed control of urban planning in recent decades self-restructured, merged with other departments, expanded its function as

a national conservation authority, and further clarified its role as a national land planning authority, which was formally recognized in an amended URA Act in 2003. This amendment, which formulated the URA's functions and duties, is intended "*to undertake land planning and to manage and control the development of land in Singapore*" ("**Urban Redevelopment Authority Act**" 1989) and is the latest modification of the URA system. Yet the URA's unceasing growth continues and remains on the same trajectory from the very beginning, while gradually evolving into a sturdy planning statutory board with centralized authority.

The scope and aspirations of urban renewal in Singapore keep growing as well. Prime Minister Lee Hsien Loong unveiled "Remaking Our Heartland" (ROH) during a National Day Rally in 2007 in response to emerging demands of the city-state's changing demographics. The HDB towns are the targets for the HDB's ROH programme, which was formulated based on demographic investigations to gather residents' opinions and put more measures into practice. Instruments range from enhanced greenery, increased connectivity by interconnected corridors and promenades, new MRT stations to increase mobility, more community facilities, and new commercial developments like precinct markets and multi-function shopping malls. Three batches of ROH projects have been unveiled since its launch and

public consultations and exhibitions followed the announcement of ROH projects for tailoring a delicate renewal strategy. The ROH programme is a 20-30 years long-term plan to transform HDB towns and estates into vibrant living environments. It has already incorporated nine of Singapore's 23 HDB towns into this aspiring strategy and benefited about 1.3 million residents (**HDB 2017b**).

### *Urban Renewal in Taipei*

In Taiwan's Central Government, the Construction and Planning Agency Ministry of the Interior has appointed the Urban Redevelopments Team to manage the island's urban renewal, but it is essentially responsible for the general goals and decisions of redevelopment plans, progress supervision, consultations, inquiries, and coordination. The substantial organization that goes into handling urban renewal affairs is distributed among municipal governments so that each city has a degree of freedom to practice its own urban renewal. Similarly, the Urban Renewal Act is the principal law at the central government level that oversees the principle of urban renewal for all of Taiwan. The municipal governments legislate the regulations at the city level to further translate the details to suit local circumstances. For example, the Taipei City Urban Regeneration Office (URO) is the statutory government board that answers to Taipei City's Department of Urban Development to manage the city's urban renewal matters.

The Taipei City Government set up the Taipei City Urban Regeneration Fund in 2006 to bear the expenses related to urban renewal affairs. However, the government has distributed only US\$4.2 million to urban renewal affairs since the fund's establishment (**Taipei City Urban Regeneration Office 2018**), which is far from enough to revitalize privately-owned urban deteriorated areas efficiently. The scarce resources impede municipal governments from initiating renewal projects. Instead, urban renewal in Taiwan is pushed by tax reduction and additional building bulk. These two incentives induce the participation of the community and private sector, while rights transformation decides the benefit distribution among the involved stakeholders. The Taipei City Government would first investigate and analyse the declined regions and further designate the 'renewal areas' based on their necessity of rectification. The owners of the deteriorated buildings located in the renewal areas are entitled to initiate urban renewal plans with prerequisite majority consensuses, although the projects could be initiated by the owners themselves or entrusted to private sector agents under the supervision of the Urban Renewal Committee. The Taipei City Government would grant tax reductions to those urban renewal projects to reduce the owner's financial burden on redevelopment, and permit a different amount of additional building bulk to reward projects according to their proposed designs. This would focus

on the potential advantages that a project contributes to its neighbourhood or environment. Ideally, a renewal project would produce additional profits from the sale of those additional floor areas, thereby benefiting the owners and entrusted private sector and acting as both an incentive to attract their participation and leverage to balance the redevelopment costs (**Hui et al. 2008**). Rights transformation is the principle of distributing the profits gained after redevelopment. It depends on the property value of each stakeholder involved in the renewal process, each of which would receive its own proportional allocation.

An agreement between the community and entrusted developer has to be established in order to entitle the developer to redevelop the community-owned land. Such agreement is achieved after both at least 80% of the eligible community and the entrusted developer are satisfied with the proposed redevelopment design and the distribution of profit or expenditure. The community can also redevelop their properties on their own under the same urban renewal rule to acquire additional building bulk as bonus, and the community thus has to be capable of mobilizing enough funding and professionals to complete the project. In this regard, the majority of the renewal cases in Taipei have thus been enabled by the cooperation between communities and private developers.

This spontaneous cooperation between the community and private sectors

is the prevalent impetus for urban renewal in Taipei. The Taipei City Government offers numerous incentives to attract community involvement, so as to enable urban renewal from the bottom-up. The process of renewal requires an incremental percentage of majority consent at each stage to ensure that most engaged stakeholders are satisfied with both the process and redevelopment design of a project. A consensus-based, community-led urban renewal operation offers opportunities to communities to shape their living environments and empowers them to have a substantial influence on the cities in which they live (**Chan & Lee 2008**).

#### *Changes in Recent Decades in Taipei's Urban Renewal*

The Taipei City Government established the Taipei Urban Redevelopment Center (URC) as a non-profit legal foundation in 2012. Requiring financial support from the Taipei City Government, the original objective of the URC was to offer professional assistance on urban renewal to communities and this was subsequently transformed into an implementation of government-led urban renewal along with the promulgation of government-led Urban Regeneration Implementation Guidelines. In 2016, there were ten pilot, government-led projects that were implemented or facilitated by the URC and served as pioneers for the government strategy.

The spontaneous community and

private sector-led urban renewal process, which began in 1998, has alleviated the Taipei City Government's financial burden, but several drawbacks have appeared. There has been mutual distrust between the community and private sector, which has sometimes hindered progress. The magnitude of the renewal projects has usually been small and sporadic and most of them have concentrated on potentially lucrative areas rather than on declining older areas that need them the most because of the profit motive (**Taipei Urban Regeneration Center 2016b**). To ameliorate the excessive reliance on community-led urban renewal, the Taipei City Government legislated a "Government-Led Urban Regeneration Implementation Guideline" in March 2016 as an innovative approach to cope with the above issues. The Taipei City Government examined the deteriorated areas and selected certain pilot districts before applying this urban renewal approach. Similar to the community and private sector-led urban renewal, the process began with an ownership integration and consensus among the majority of owners. The Taipei City Government can implement the projects by itself or entrust it to qualified private sector players and proceed with rights transformation afterward. To facilitate the process, the government-led projects are entitled to draw from the Taipei City Urban Regeneration Fund as a mortgage. Those districts that hold aggregated site areas amounting to 2,000 square metres or are occupied by over 100 households would be regarded as priority targets for implementing

government-led urban renewal for larger community benefits.

The newly-legislated Guideline indicates that the Taipei City Government has embraced the counter-urban renewal approach instead of its conventional passive attitude. The recently-announced ten government-led urban renewal projects involved an aggregate area of 978,000 square metres (**Taipei Urban Regeneration Center 2016a**) with comprehensive plans set after dozens of professional consultations, public exhibitions, and hearings. Each government-led project is equipped with its own specific renewal strategy for resilience, transportation, historical preservation, or infrastructure improvement. Moreover, this programme is expected to help 3,800 households revitalize their accommodation, offer 4,100 public housing units, and elicit US\$7.95 billion of investment from the government, community, and private sector (**Taipei City Government 2016**).

## DISCUSSION OF THE RECENT EVOLUTION OF THE URBAN RENEWAL INSTITUTION

### *Hong Kong*

URA staff are not recognized as public servants and, thus, lack legitimacy in some observers' eyes. While the URA is expected to be self-sufficient in its urban renewal operations, it has no alternative but to adopt a top-down



approach with insufficient transparency in publicized information. It is difficult for communities not to regard the URA as a utilitarian body that strives for profits rather than appreciate it as a caregiver that prioritizes community benefits.

A deficiency of financial resources, weak authority, and an incapability of community consensus building are all factors that have impeded the effective implementation of urban renewal in Hong Kong. During its recent adoption of its new approaches, the URA executed several countermeasures in its modified urban renewal strategy in response to the abovementioned issues. Such a transformation implied that it has gradually shifted from being a utilitarian to a facilitator that echoes the aspirations of affected residents.

### *Singapore*

During the 1960s, at the height of Singapore's housing crisis, only 9% of its population lived in government flats, while an enormous number of people still lived in dilapidated slums. But now HDB flats house over 80% of its population. Possessing strong government support in the legislated form of political and financial commitments (**HDB 2017a**), the continually expanding aspirations of the HDB and URA demonstrate their maturity in addressing the city-state's urban issues. The government's initial objective was to provide adequate and affordable public housing to its residents. This was followed by offering

the city a thriving, lively environment as part of the holistic Concept and Master Plan, from the quantity of housing to quality of life, through an effectual authority (**Chew 2009**).

Unremittingly, the enlarged scope of urban renewal grows from single buildings to neighbourhood precincts and further achieves the town scale in ROH programme (**Singapore Ministry of National Development 2017**). More vigorously, the denotation of urban renewal in Singapore is more than an instrument to fine-tune rundown areas. Rather, the government has exerted a farsighted approach to achieve "An Endearing Home and a Distinctive Global City" (**Singapore Ministry of National Development 2018**). The authority of the HDB and URA to implement a top-down approach grows continuously. Currently, they are manifesting their place-marketing advocacy to reinforce Singapore's regional position as a world city and protagonist (**Miles & Paddison 2005**). The government's ambition of achieving global city status is vividly demonstrated.

### *Taipei*

Without involving itself in urban renewal, the Taipei City Government delegated the major task of urban renewal to the community and private sector to complete the projects through joint collaboration. The Taipei City Government acts as a facilitator by offering incentives, as a coordinator by mediating the inevitable disputes

between the community and private sector, and an examiner to ensure that the renewal projects will be of a certain quality and value to the affected areas.

The establishment of the Taipei Urban Redevelopment Center showed that urban renewal in Taipei is no longer engineered from one direction only, but at every level. This approach also implies that the Taipei City Government has developed a more assertive posture towards redevelopment after years of ignoring it. It has now decided to take up the challenge of serving as a motivated implementer, which was tailor-made for it a long time ago.

## CONCLUSION

This paper studied and compared the recent evolution of urban renewal institutions in Hong Kong, Singapore, and Taipei as three competitive Asian cities. The observations derived from this comparison were supported by the theoretical framework the paper established. Simultaneously, the utility of this comparative framework was demonstrated by a comparison of the three cities. The authors observed that not only were their intrinsic urban renewal institutions largely distinct from each other, the directions of their institutional evolution diverged greatly, which disclosed that an appreciation for an optimal urban renewal became vaguer. Each city's adoption of an evolving urban renewal institution echoed the argument that, "There has been a search for the 'ideal structure

of government' for the delivery of effective regeneration strategies. The only conclusion that can be drawn from the cases reviewed is that such a structure is a chimera" (Couch, Fraser, & Percy 2003, p.198). Consequently, to confront a continually changing urban environment, stakeholders must appreciate the value of learning from each other, which has substantially increased, so comparative and mutual studies become more relevant.

## ACKNOWLEDGEMENTS

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# Dr. Edward George Pryor MBE

Lawrence W C Lai\*

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“Honest, daring and resolute”<sup>1</sup>

“A pioneer in Hong Kong’s strategic planning”<sup>2</sup>

To me, the greatest local town planner in Hong Kong government history was Dr. Edward George Pryor (12 March 1938 - 17 September 2018). The conferment of a MBE to him in January 1997 shows the importance of his contribution to town planning. To his colleagues and friends, he was called Ted. **Figure 1** is a photo taken on 7 June 1997 of government town planners at or above the rank of Assistant Director with Dr. Pryor in the limelight. **Figure 2** is a photo taken by Y K Tan in the 1990s showing Dr. Pryor in a DC 10 plane used by the NGO Orbis.



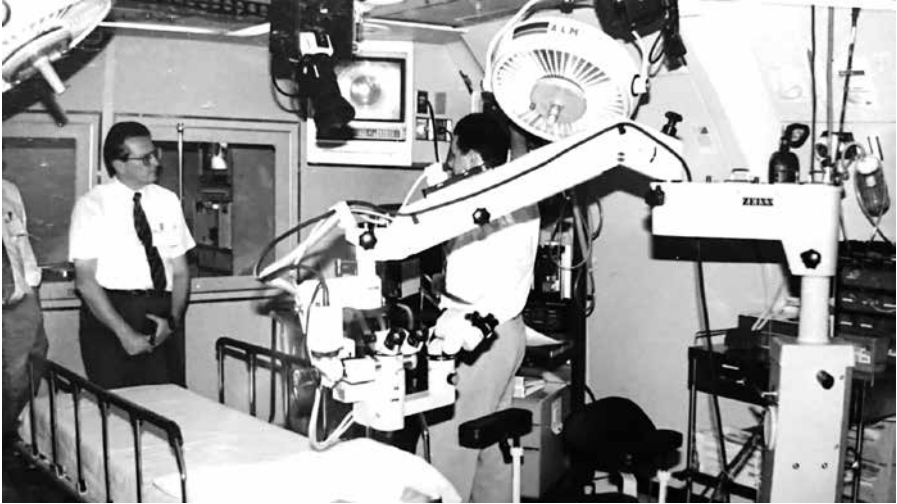
**Figure 1**

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<sup>1</sup> Per a retired Chief Town Planner.

<sup>2</sup> Per another Chief Town Planner



**Figure 2**

This recollection of Ted is informed by my encounter with him as a town planner seconded to the Strategic Planning Unit (SPU), Lands and Works Branch, from the Buildings and Lands Department (BLD) from 1987 to 1989. Prior to this posting, I worked in the Sub-Regional Planning section, Town Planning Office in BLD.<sup>3</sup>

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<sup>3</sup> When I returned to the Sub-regional Planning section of the Town Planning Office after a honeymoon trip to Europe in 1987. It was then on the third floor of the Murray Building and I found my office bay empty and belongings all gone. I was wondering what had happened when the steno typist of the Chief Town Planner handed me a bearer memo for my transfer to “SPU upstairs”. The SPU office was on the top floor of Murray Building and one had to walk up one more storey after reaching the highest storey the lift served. The SPU office was on one side and the Town Planning Board conference room on the other side of this strange top floor. It had no windows! I was soon told that our “boss” was Dr. Edward G. Pryor, Government Town Planner. Colleagues in SPU called him “Ted” rather than his

In writing this reminiscence, I have tried my best to remove expressions which Ted would not have approved of were he to hear them.

During this period, I was secretary to the Association of Local Town Planning Officers (ALTPO) the purpose of which was to promote localization in the shortest possible time to allow for promotion of local Chinese town planners to higher ranks. I have never mentioned this to him and Dr. Pryor never asked me anything about this association.

## A LOCAL OFFICER

Ted was a New Zealander but he was

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nickname in Cantonese “son of god” (神仔). The “god” was Mr. AF Meyers, who retired as Principal Government Town Planner in 1973.



not an “expatriate” officer. From 1965 to 1999,<sup>4</sup> when he retired, he served the government on “local pensionable terms” of service, which insulated him from the localization policy set out in during the mid-1980s.<sup>5</sup>

His departure from this world in September 2018, just when the HKSAR government announced a policy of constructing artificial islands, was to those who know him by contact (and those who will know him by research) a signal memento of his contribution to strategic planning in Hong Kong by reclamation.

Those within the bureaucracy, who were unable to share the joy of his achievements, which were always described as “corporate” rather than individual, represented Ted as a workaholic with no sympathy for subordinates. Other than this widely circulated and malicious remark, against which I shall testify below, he was hard to find fault with.

Ted was lavish in commending good work by his staff and consultants and would not hesitate to write letters of praise of such work.

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<sup>4</sup> According to government’s Staff List, he was Planning Officer from 23 October 1965; Acting Senior Planning Officer from 11 December 1967 to 9 April 1969; Senior Planning Officer: 23 October 1969 to 31 March 1976; Assistant Director of Housing from 1 April 1976 to 15 July 1980; Government Town Planner: 16 July 1980 to 31 December 1990; and finally Principal Government Town Planner from 1 January 1990 to retirement in 1998.

<sup>5</sup> As a move to pave the way to the “handover”, something that has not been rigorously attempted in the academia.

## AN EFFICIENT OFFICER

He was said to be a “workaholic” probably because he was an example of efficiency and productivity. He came to the office at about 8 am. He finished his daily work at 5 pm sharp. He did not sit on files. Nor did he require junior staff to stay behind in the office. Actually, once someone had finished his or her “assignments” of the day, he or she could be excused from office. Ted trusted his staff.

## A PRODUCTIVE OFFICER

He made an important contribution to the Colony Outline Plan<sup>6</sup>; the ten-year rolling Public Housing Development Programme (PHDP); Metroplan; and the Port and Airport Development Strategy (PADS).

These planning feats were no jokes or “white elephants”, as post-colonial Hong Kong history has revealed. They shaped the physical morphology of the Hong Kong Special Administrative Region.

He personally wrote many of the important policy and technical papers for these important planning endeavours, enriching the local planning vocabulary.<sup>7</sup>

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<sup>6</sup> The “COP”, later renamed Hong Kong Outline Plan (HKOP), which consisted of the first versions of what became the Hong Kong Planning Standards and Guidelines (HKPSG).

<sup>7</sup> See **Lai and Baker (2014)**.

He was a spatially highly sensitive person and knew the geography of Hong Kong very well. While many remember him as a prescient anticipator of strategic reclamation, he was keen to implement proposals for “urban fringe parks”, as well planned and managed fringes of country parks, and to inject major open spaces into the old urban core by land exchange.

He was a person who did not advertise himself, though he followed the norm of using his real name in his literal works that appear in planning journals and books. A list of such works, unlikely to be exhaustive, is at **Appendix 1**.

His doctoral thesis was on urban renewal, which was further developed into his 1983 book *Housing in Hong Kong*. He was the external examiner of the doctoral theses of at least two local town planners known personally to me.

Ted’s works, unlike those fashionable today, were written in unpretentious language at a time when there was no ritualistic academic need to decorate planning research with high sounding theories or paradigms. They are essential reading for serious research on planning in Hong Kong as they show clearly what a senior and influential government planner thought about housing and planning for Hong Kong.

## A CHARITABLE PERSON

I never heard him said anything bad or wrong behind anyone’s back. At

most, he said, “this is politics”, then he moved onto planning work. Nor would he make any public statement which might make someone feel small.

His personal secretary in SPU, Jenny, told me that when he heard that a government cleaner’s friend lost his job, he found a job for him.

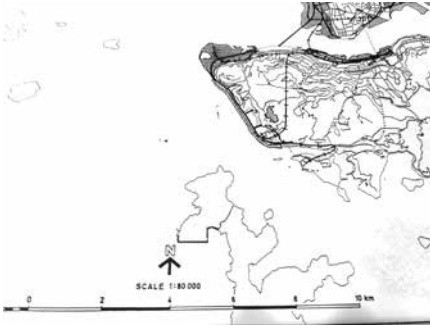
When New Zealand suffered from an earthquake in 2011, he wrote to friends by email asking for donations to help the needy and sharing his opinions about earthquakes (as shown in **Appendix 2**).

## TED’S IDIOSYNCRASIES

He wrote more than he spoke. “This is hair splitting” and “at the end of the day” were his frequently used expressions.

He did not like putting on a town plan or sketch a north sign that took the shape of a sharp arrow but a very flat one, as shown in **Figure 3**, an excerpt from a Metroplan report. He favoured orange and other bright colours in map presentation.

Ted liked to wear a brown suit and was fond of painting and aeroplanes. It is thanks to Ted’s enthusiasm that we have the replica Farman biplane (a replica of the first aeroplane to operate in Hong Kong) hanging up at the Chek Lap Kok airport (**Figure 4**).



**Figure 3**



**Figure 4**

## ACKNOWLEDGEMENTS

I am grateful to Prof. Stephen N.G. Davies for his advice and help in compiling Appendix 1.

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## APPENDIX 1: SOME PUBLICATIONS OF DR. E.G. PRYOR

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## APPENDIX 2

Dear Lawrence,

I was pleased to have made contact with both Christine Tse and you again.

As you will be well aware, Christchurch City was struck in September 2011 by a series of fierce earthquakes and - to keep you and your colleagues informed - I send herewith three attachments that I hope you will find of some significant interest. I have also taken the liberty to copy this e-mail (with the same attachments) to Prof. Denis Dwyer with whom I previously have had a close professional association.

Please also note that, while there might be other sources of information regarding earthquakes, the saga of the earthquakes has been both a first-hand alarming experience and an opportunity to enlighten myself (and perhaps others) as to the "mechanics" behind earthquakes - which generate huge quantities of raw energy.

I also take this opportunity to greet all other former associates of Hong Kong and hope that the attachments sent herewith might be of some value from as you might consider appropriate. The attachments are from other sources.

As a general comment, you may wish to take note of the following matters arisen from the recent earthquake occurrences, as summarized below.

With kind regards to all Hong Kong colleagues.

Ted Pryor MBE

FIELD TRIP NOTES

# Post-war Hong Kong Border Security Sites: Wang Lek, Pak Kung Au and Robin's Nest (Hung Fa Leng)

Y.K. Tan\*

## ABSTRACT

This short note records the disused post war British defensive facilities found by the author at Wang Lek, Pak Kung Au and Robins' Nest (Hung Fa Leng) in Hong Kong's border area.

## INTRODUCTION

With a view to stimulate further and better research on and conservation of built heritage significant in Hong Kong history as an international hub, this short note is a continuation of the field notes disused British defensive facilities published in the last issue of *Surveying and Built Environment* by Tan, Lai and Leung (2018). Discoveries about some Japanese war-time defence structures were also reported. All photos were taken by the authors.

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## WANG LEK

A post-war British defence site, as shown in **Figure 1**, was located on the 150-metre high hilltop of Wong Mau Hang Shan north ridge near Wang Lek. This was the only heavily fortified hill known to the author along the border with Shenzhen. **Figure 2** shows the strategic importance of the site. Shenzhen is on the left and the Kong Shan “MacIntosh Fort” is in the background. This site controlled the entrance below to the pass into the Sha Tau Kok area. The defence site is around the hilltop and well-covered by trees. This is the only hill along the border with trees on its top. They were possibly planted by the British to cover the site.

**Figure 3** shows the view from Robin's Nest to Wong Mau Hang Shan. The site is at the end of the ridge. There is a track going up the hilltop from its rear. **Figure 4** shows a jeep track to the top of the hill. The track was built on the rear of the hill and hidden by the terrain.

**Figure 5** shows the gate to the site, near which the remains of building foundations can be found. A trench directly connected to an ex-building as shown in **Figure 6**. There were remains of the foundations of another building nearby, as indicated in **Figure 7**. That building was supported by simple wooden frames covered by corrugated iron sheets. The main defence site was in the area behind the tree. Near this

site is an underground Observation Post (OP) as can be seen in **Figure 8**. **Figure 9** shows some building materials of the OP. It was also supported by wooden beams and its sides covered by corrugated iron sheets. It was not a reinforced concrete structure.

**Figure 10** shows a trench in the vicinity. It was still covered by corrugated iron sheets with L-shaped metallic beams supporting the frame. The bottom surface was also covered by corrugated iron sheets – likely for better drainage. The trench was very narrow and only allowed one person to pass. The bottom of the trench was even narrower than its upper reaches.

**Figure 11** gives an idea of the top of the trench, which was completely covered by corrugated iron sheets and earth in some places. Possibly, most parts of this trench were concealed from the air like this. This area was considered heavily-fortified because the trench system was rather extensive, as shown in **Figure 12**, and surrounded the hilltop by connecting to various defense positions to form a redoubt. At least one section of the trench had concrete roofing, as shown in **Figure 13**.

Another example of a defense position is shown in **Figure 14**. Note the tree in front of it hides the position from being spotted from below and the air. Some positions were built underground, as shown in **Figure 15**, protected by concrete roofs. The example shown in **Figure 16** could be the headquarters.



**Figure 1:** Location of Wang Lek



**Figure 5:** The gate to the site at Wang Lek



**Figure 2:** Strategic position of the Wang Lek site



**Figure 6:** Remains of building foundations near the gate



**Figure 3:** Look down from Robin's Nest to Wong Mau Hang Shan



**Figure 7:** Remains of building foundations of another building nearby



**Figure 4:** A jeep track to the hilltop





**Figure 8:** An underground OP near the building



**Figure 9:** Building materials of the OP at Wang Lek



**Figure 10:** A trench at Wang Lek



**Figure 11:** Top view of the trench



**Figure 12:** Part of the trench network surrounding the hilltop of Wang Lek



**Figure 13:** A section of the trench protected by concrete roofing



**Figure 14:** A defense position connected to the trench



**Figure 15:** An underground defense position



**Figure 16:** A concrete-covered underground structure

## PAK KUNG AU

Pak Kung Au is a “gap” or “pass” along the hilly range between Hong Kong and Shenzhen through which a major route to Sha Tau Kok area runs. Therefore, it was a strategically important location. Both the Japanese occupiers and British forces built defence structures in this location.

To control Pak Kung Au pass, a MacIntosh Fort was built on the ridge that looks down to the pass. A large observation post (OP) was found on the 390-meter hilltop. There were also two WW2 Japanese pillboxes in the vicinity. The British headquarters and living quarters were built on a ridge gap behind the OP. The site is in a very remote location not connected to any other part of Hong Kong by road. Two buildings there provided basic living facilities (bed rooms, kitchens, bath rooms and toilets) for the defence force in this remote location. Other living facilities included two large metal water tanks and some stoves.

The upper panel of **Figure 17** shows the ridge from the Sha Tau Kok side. Pak Kung Au is behind the hill. The OP was in the location within the red circle in **Figure 18**.

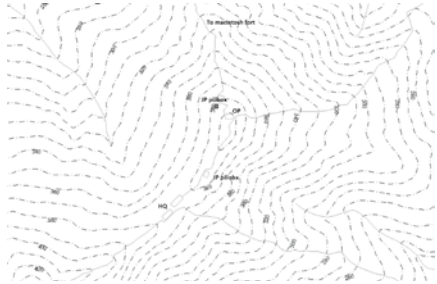
**Figure 19** shows the MacIntosh Fort above the Pak Kung Au Pass. Behind the road to the right is Shenzhen. The OP, as shown in **Figure 20**, commands a good view of the ridge to Sha Tau Kok. It was connected to the MacIntosh Fort along the ridge down to Pak Kung Au.

**Figure 21** shows the context of the OP. The ridge in the background connects to Robin's Nest. Office and living buildings were built near the OP behind the knoll. The building in **Figure 22** had a kitchen and bathroom. **Figure 23** shows a large building that was possibly used as an office.

Many life support facilities can be found near these buildings including stoves, as shown in **Figures 24 and 25**.

A British defense position is shown in **Figure 26**.

**Figure 27** shows one of the Japanese pillboxes on the ridge behind the OP. It controlled the ridge all the way to Robin's Nest. **Figure 28** shows another Japanese pillbox. It controlled the ridge down to Pak Kung Au.



**Figure 17:** Location of an OP at Pak Kung Au



**Figure 18:** Location of an OP at Pak Kung Au



**Figure 19:** A MacIntosh Fort above the Pak Kung Au Pass



**Figure 20:** an OP on top of 390-meter hill



**Figure 23:** Another building near the OP on the 390-meter hill



**Figure 21:** Setting of the OP on the 390-meter hill



**Figure 24:** A water tank near the building at Pak Kung Au



**Figure 22:** A building near the OP on the 390-meter hill



**Figure 25:** A stove near the water tank



**Figure 27:** A Japanese pillbox on the ridge behind the OP controlling the ridge to Robin's Nest



**Figure 28:** Another Japanese pillbox below the OP at Pak Kung Au



**Figure 26:** A defence position around the site

## ROBIN'S NEST

Robin's Nest as a hill (Hung Fa Leng or "red flowers ridge") is a major geographical barrier between Hong Kong and Shenzhen. Therefore, the British built defensive structures here to control the ridge.

**Figure 29** shows Robin's Nest, as seen from Sha Tau Kok Road. A radio tower marked the end of the main road. However, there is a jeep track going up to the hilltop and along the ridge. **Figure 30** shows Robin's Nest, as viewed from Wo Keng Shan. Lin Ma Hang and Shenzhen in the Chinese Mainland are on the left-hand side. **Figure 31** shows the road link to Robin's Nest. **Figure 32** shows the location of an army camp built in a location that was flanked by hills and close to a stream. A likely water tank could be found near the camp, as shown in **Figure 33**.

**Figure 34** shows a paved military road from Wo Keng Shan Road to the top of Robin's Nest. Milestones were erected along one side of the entire road. An un-metalled jeep track was also found, as indicated in **Figure 35**. The barbed wire fence along the track has long since been removed, but note that it stands on the right of the photo. Judging from the remains of the barbed wire stands in **Figure 36**, we may deduce that there were two sets of barbed wire fence surrounding the hill.

Towards the end of the paved road as shown in **Figure 37** near the hilltop

is a helipad, as shown in **Figure 38**. The original defensive buildings were demolished, but one might have been converted into a radio station, as shown in **Figure 39**. The last milestone has a "5000" mark, as indicated in **Figure 40**.

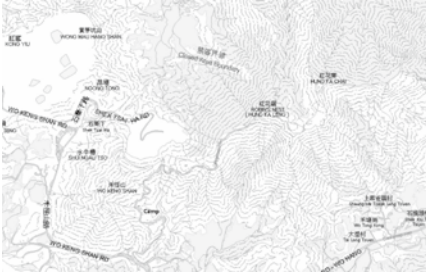
**Figures 41-42** show the strategic position of Robin's Nest. **Figure 41** shows Shenzhen City as the background of the radio station at the end of the paved road. **Figures 42 and 43** show Sha Tau Kok and New Territories new town development in the distance, respectively. **Figures 44 and 45** show two defensive positions dug into the ground along the ridge down to Ling Ma Hang.



**Figure 29:** Robin's Nest seen from Sha Tau Kok Road



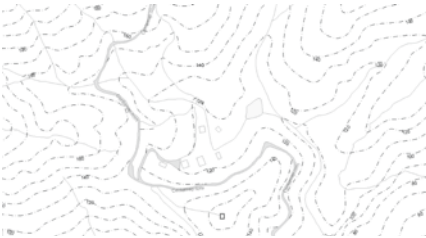
**Figure 30:** Robin's Nest seen from Wo Keng Shan



**Figure 31:** The main road to Robin's Nest



**Figure 34:** A paved military road from Wo Keng Shan Road to the top of Robin's Nest



**Figure 32:** Location of an army camp in Robin's Nest



**Figure 33:** A likely water tank on the hill top near the army camp



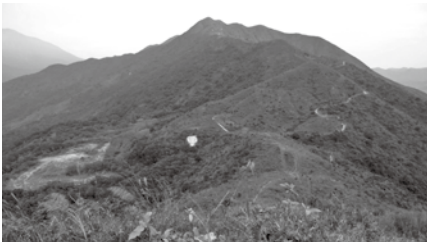
**Figure 35:** Jeep track on the hillside connecting to defense position



**Figure 36:** Remains of barbed wire fence stands



**Figure 39:** Helipad at end of the main road



**Figure 37:** A defense position on Wo Keng Shan with Robin's Nest in the background



**Figure 38:** The main road



**Figure 40:** Milestone 5000





**Figure 41:** The radio station at road's end with Shenzhen in the background



**Figure 45** A defense position located along the ridge going down to Lin Ma Hang



**Figure 42:** Ridge in direction of Sha Tau Kok



**Figure 43:** Ridge to Lin Ma Hang



**Figure 44:** A defense position located along the ridge going down to Lin Ma Hang

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