

Historic Building Appraisal
Old Quarry Site Structures
Lei Yue Mun, Kwun Tong, Kowloon

Hong Kong has been well favoured with its building stones. The high quality, *Historical Interest* fine-grained granite was commonly used in construction by the time the island of Hong Kong was taken over by the British in 1841. This situation continued after the British arrival, with quarries stretching along the northern coastline of the Island, ranging from Shek Tong Tsui (石塘咀) in the western part to Quarry Bay (鰂魚涌) and A Kung Ngan (阿公岩) in the east. There were many new colonial buildings and structures which, at this date, were rich in local granite. Surviving examples include Flagstaff House and St John's Cathedral.

The general topography of the villages of Lei Yue Mun (鯉魚門), Ngau Tau Kok (牛頭角), Sai Cho Wan (茜草灣) and Cha Kwo Ling (茶果嶺) in Kowloon was quite hilly, offering little arable land for crop growing, but they were rich in granite. They were well known for the production of stones, and thus got the name of 'Si Shan' (四山, 'Four Hills'). The Qing government appointed a 'Tau Yan' (頭人) (headman) in each of the 'Four Hills' to manage the quarries. There was a 'Sze Shan Kung So' (四山公所, Communal Hall of Four Hills) to discuss matters relating to stone business. The famous Canton Cathedral (廣州石室) was built with granite cut in the "Four Hills".

The British takeover of Kowloon and the New Territories led to a greater demand of stone for construction. At the time, the more prominent stone-cutting stores in Lei Yue Mun included Tung Li Tong (同利堂) owned by Ip Wa-shing (葉華勝) (1844-1914), Tung Tai Tong (同泰堂) owned by Tsang Lam-on (曾林安) and Tung Fuk Tong (同福堂) owned by Ip Fuk (葉福). Large numbers of workers and carriers were procured from Wuhua (五華), Huiyang (惠陽), Meixian (梅縣) and Dongguan (東莞). The quarries remained active until 1941. Under the Japanese, the stone business came to an abrupt end.

The post-war rehabilitation and development of Hong Kong has resulted in a massive demand for crushed stone. Shortly after the war, the pre-war Government quarry at Hok Un (鶴園) was rehabilitated to supply the bulk of the needs for crushed stone used by the Public Works Department. To tide over the period whilst new plant was obtained from abroad for the Government quarry at Tsat Tze Mui (七姊妹), a contract was let in 1946-47 to Messrs. Marsman & Co. for the supply of crushed stone from Morrison Hill (摩利臣山). Two years later, a new quarry was set up at Hung Shui Kiu (洪水橋) where crushing units were installed to produce aggregates for roadworks and military projects in this area of the New Territories.

Due to the rising demand for crushed stone for building after World War II, it was found necessary to let permits for the supply of this type of material from privately-run quarries. The permits were issued under authority of the District Officer for the rural area (New Territories) or the Superintendent of Crown Lands for Kowloon and Hong Kong. Most of the “permit quarries”, managed by small operators, were labour intensive with much hand working. Rock was drilled, and explosives placed, by hand by men hanging from ropes on the quarry face. Hand-held hammers were used to loosen un-blasted rock from the quarry face. Aggregates might still be made by breaking rock manually with hammers.

In post-war Lei Yue Mun, most of the stone quarries abandoned in 1941 were being left not re-opened. The coastal land at the toe of Devil’s Peak facing Lyemun Point became a quarry operated on permit by three firms, namely, Tai Hing Quarry Co. (大興石廠), Oriental Quarry Co. (東方石廠) and Wong Yin Quarry Co. (旺賢石廠). Granite was excavated as dressed stone for building blocks and aggregates in concrete. The seawall in front of North Point Estate (北角邨) was built in the 1950s with granite cut from this quarry. Initially, the methods of operation were similar to those described in the previous paragraph. Later, the use of crusher machines resulted in an increased output of aggregates. In the heyday, there were 400 workers in the site. The quarry was closed after the mid-1960s after the expiry of permits.

The coastal land at the toe of Devil’s Peak facing Lyemun Point is littered with an abundance of granite blocks removed from the quarry face for breaking. In addition, there are utilitarian structures which are not of great architectural merits, but should be considered as evidence of the quarrying activities. They are briefly described below.

*Architectural
Merit*

1. Jetty: This structure is about 8 or 9 metres wide and stands about 7 metres above sea level at its highest point. It consists of two sloping sides and a front wall built of granite blocks and concrete. The deck was a slab of unreinforced concrete originally. Transport was accomplished by truckers shutting between the jetty and the stockpiles. The ramp decking which projects out into the sea is collapsed: as the broken pieces are lying in a haphazard arrangement the jetty is temporarily fenced off from public access.

2. Stone Hut (Checker’s Kiosk) near the Jetty: This is a two-storey stone hut with a flat concrete roof. The construction of its walls is granite stones laid to courses. The doorway to the upper storey is unblocked. The doorway and window openings to the lower storey are blocked. What appear to be the remains of a concrete balcony can be seen at the rear of the hut. It is difficult without evidence or corroboration to attribute uses to the various parts of the structure,

but possible uses may have included an office or kiosk for checking the amount of stones being loaded on to the barges. Stone blocks were counted by tons and aggregates were counted by cubic yards.

3. Quay and Retention Wall at the western end of the site: The crushed stones which were yet to be loaded onto the stone-boats were stockpiled at this site. The quay is approximately 3 by 4 metres in plan and stands about 2 metres above sea level. It is adjoined by remains of a retention wall which is built of roughly coursed granite blocks and is topped with a concrete slab which has four equally spaced concreted padstones.

4. Quay and Retention Wall along the southern boundary of the site: This is another spot where aggregates were held in stockpiles and the stone-boats could stop to load aggregates. The wall was built of random rubble jointed with aggregate mortar or concrete. Some through stones or bondstones can be seen but it is difficult to ascertain the original thickness of the wall as it has been seriously eroded by the sea.

5. Blockhouse (Overseer's Office/Watchmen's Quarters): This structure like the others is built with coursed rubble walls and flat concrete roofs. It appears to have been built as a series of annexes and additions constructed at different times. Ventilation holes or loopholes can be seen in places, but most of the windows and doors are blocked up. Possible uses of the blockhouse may have included overseer's office as well as kitchen and mess for watchmen. Any of these uses would have been part of the quarry operation or activities.

6. Stone Hut (Dangerous Goods Store): Situated at the eastern end of the site, this two-storey, flat-roofed structure is built of coursed granite blocks with concrete slabs forming the floors and roof. Windows and doors are blocked up. It was a facility for the safe custody of explosive materials used in quarrying. The hut resembles a watchtower, and there is a saying among historians (not yet confirmed by documentary sources) that it might have been used as a pillbox to guard the harbour of Lyemun Point.

7. Seawall (a site for stockpiling of crushed stone): This wall, built of random rubble and concrete, is about 2 metres high and extends from the seashore along the crest of a rocky incline northwards. From 1940s to 1960s, it was a site for stockpiling of crushed stone. Divided into bays by buttresses built on the inside face, this wall is architecturally different from the retention walls described above. It is possible that together with the nearby stone hut it was built for some military purpose.

8. Curved Stone Wall: One of the most unusual features found at the site was a curved stone wall which has a battered face and is built of roughly coursed granite stones. Its function and age is not known. It resembles very much the

ruins of a castle rampart or bastion and like the wall and stone hut at the eastern end of the site it may have been used for some military purpose such as a gun battery. It may have been built by the British or the Japanese, or it may date further back to the Qing Dynasty.

9. Quarry Face: Although not a building, the quarry face is included here as an evidence of the quarrying activities. The high near-vertical rock faces, in places as high as some 100 feet, suggest that this site was intensively quarried. Blasting on quarry faces was done by means of explosives that were introduced into vertical holes, and boring of the holes was accomplished by a tool impacting upon the rock. Prior to the actual blast which took place between 9am and 11am or between 3pm and 5pm, the site witnessed display of red flags and sounding of a copper gong to remove persons from the blast area.

10. Quay for the loading of vessels: This structure is a concrete block which shows the exposed aggregate and shuttering marks quite clearly. It is another aggregate storage bay where stone-boats could stop to load aggregates.

11. Quay for the loading of vessels: This is a stone and concrete block built in front of a stone wall. Its original purpose is not known but it was a quay for loading aggregate on to the boats from 1940s to 1960s.

12. Concrete Base for a stone crushing plant: This structure is U-shaped, with what appear to be two chutes and a pit or open chamber behind. It was used as a base for a stone crushing plant. Energy requirements in crushing were relatively large, and the crusher was powered by a diesel engine. In the crusher, the quarried stone blocks were nipped into smaller fragments and reduced to a specified size range.

13. Concrete Hut (Dangerous Goods Store): This is a small single storey hut with a flat roof and seems to be constructed of concrete. From 1950s and 1960s, it was used as a storeroom for diesel oil and explosives for quarrying, but other uses cannot be ruled out, for example, a room for the storage of tools and equipment, repair and maintenance workshop, blacksmith's forge, bunkhouse or bothy.

Most, if not all of the surface features at the site were related to stone quarrying, but some of them are probably unrelated to quarrying and may represent earlier periods of activity. They probably served multiple functions and were manipulated over time by people to perform other tasks as necessitated by one-going quarrying operations.

Compared to every other known stone quarry, this one in Lei Yue Mun has by far the most extensive built structures related to quarrying. It is quite rare in Hong Kong to find a group of old quarry structures like this still existing. Of the

**Rarity,
Built Heritage
Value**

“Four Stone Hills”, Sai Cho Wan was cleared in 1948 for an oil depot which occupied the site before Laguna City. Ngau Tau Kok has also disappeared: the village was cleared in 1966 and its hill has been flattened to provide fill for reclamations. Cha Kwo Ling mainly survive, but the hill behind it has disappeared some 40 years ago. Although abandoned, the Lei Yue Mun quarry structures retain their authenticity. **& Authenticity**

Rock processing was an important industry in Hong Kong. Until some 30 years ago, all processed stone, usually in the form of granitic aggregates, was obtained almost entirely from quarries within the territory. It was not until the late 1970s that additional supplies of aggregates were obtained from quarries in the Special Economic Zones of the People’s Republic of China. **Social Value & Local Interest**

Difficulties of weight, bulk and removal combined with cheapness of water transport, have naturally resulted in the location of the quarries being near the sea front. This seaside quarry remains a reminder of what was once an important local industry. The granite outcrop is a landmark of Lyemun Point. It is well known to Hong Kong people and a popular spot for sea anglers..

The old quarry site structures have group value in themselves as a cluster. Besides, they have group value with the two Tin Hau temples in Ma Wan Tsuen (Grade 3) and the other one in Cha Kwo Ling (Grade 3) which included a meeting house for the elders of the “Four Stone Hills”. **Group Value**