

Historic Building Appraisal
Tai Tam Reservoir, Tai Tam Upper Reservoir
(Dam, Valve House, Masonry Bridges, Tunnel Inlet, Tunnel Outlet & Stone House)
Surmounted by a Recorder House, and Valve House

Tai Tam Reservoir (大潭水塘) is the second oldest and the largest *Historical Interest* reservoir built on Hong Kong Island. It comprises a group of reservoirs and waterworks including Tai Tam Upper Reservoir (1888), Tai Tam Byewash Reservoir (1904), Tai Tam Intermediate Reservoir (1907) and Tai Tam Tuk Reservoir (1917). Tai Tam Reservoir was the backbone for the Island's water supply. With the improved water provision, the urban areas gradually expanded.

From the engineering perspective, the techniques used to build Tai Tam Reservoir were more advanced than that of Pokfulam Reservoir, which relied completely on the simple principle of water running down from a higher place to a lower one. The Tai Tam project, however, did not rely as much on gravity flow. Gravity flow only accounted for 20% of the total capacity of the ultimate fresh water supply.

The reservoir **Dam** (水壩) is 150 metres long and approximately 42 metres *Architectural Merit* high originally, but it was raised a further 3.84 metres in 1897. The overflow spillway is independent of the dam, located some 150m to the south-west of it and discharges into Tai Tam Byewash Reservoir (大潭副水塘) located immediately downstream. The dam is a masonry faced concrete gravity dam. The masonry is roughly coursed with dressed ashlar copings. Access walkways or berms running along the dam (presumably for regular inspections) have cast iron safety railings consisting of two rows of round iron bars supported by inverted T-shaped stanchions.

The **Valve House** (水掣房) is situated on top of the dam about a third of the way along it. It is a square structure built of rock-faced rusticated granite blocks laid to courses. There is only one door opening and the two window openings at the back have been blocked up. The roof is flat with a projecting cornice supported on carved ornamental corbels. Small gaps for ventilation have been formed between the corbels.

The two **Masonry Bridges** (石橋) are situated behind a small hill to the south-west of the dam. They are built at right angles to one another and span across narrow channels that presumably were once streams. The bridges are simply constructed with thick concrete slabs supported on masonry piers or columns. The piers and columns are capped with moulded capitals or corbels to provide support for the bridge slabs which presumably are constructed of reinforced concrete. The bridges are fitted with tubular steel guard rails, and one of them has several large pipes fixed to one side.

The **Tunnel Inlet** (隧道進水口) surmounted by a **Recorder House** is situated to the south of the dam. The tunnel inlet has a decorative pedimented stone plaque incised with the dates 1883-8. The culvert is fitted with an iron grating and there are access catwalks with tubular steel guard rails constructed above it. The recorder house is built with coursed granite walls. The roof is flat with a plain coping to the parapet. The entrance door and window are of plain design. A small square building attached to the recorder house at the south-east corner is built in a different style with rock-faced rusticated granite walls and appears to have circular ventilators on the roof.

The previously open-air **Tunnel Outlet** (隧道出水口) is presently covered by a metal casing. As part of the Tai Tam scheme, both the inlet and the outlet once served as the lifeline of water supply for the City of Victoria. The **Tunnel Outlet** has a decorative pedimented stone plaque incised with the dates **1883-8**. The **Stone House**, built in the 1880s, is equipped with an antique waterworks mechanism. It is built with coursed granite walls. The roof is flat with a plain coping to the parapet. The entrance door and window are of plain design.

The reservoir structures can be classified as **Utilitarian** engineering structures with **Italianate Renaissance** influence. They are interesting examples of Victorian civil engineering and should be regarded as having considerable built heritage value. All the structures have retained their original authentic appearance.

The social value of the reservoir and its structures lies in the role they have played in the development of public water supply in Hong Kong. The reservoirs are part of the rural landscape of the Tai Tam area of much interest to visitors.

The question of adaptive re-use does not really arise.

*Rarity,
Built Heritage
Value &
Authenticity*

*Social Value
& Local
Interest*

Adaptive Re-use