

大潭篤原水抽水站

Tai Tam Tuk Raw Water Pumping Station



大潭篤原水抽水站二號
員工宿舍
Tai Tam Tuk Raw Water
Pumping Station
No.2 Staff Quarters



大潭篤原水抽水站
Tai Tam Tuk Raw Water
Pumping Station



大潭篤原水抽水站
高級員工宿舍
Tai Tam Tuk Raw Water
Pumping Station
Senior Staff Quarters



大潭篤原水抽水站
員工宿舍
Tai Tam Tuk Raw Water
Pumping Station
Staff Quarters



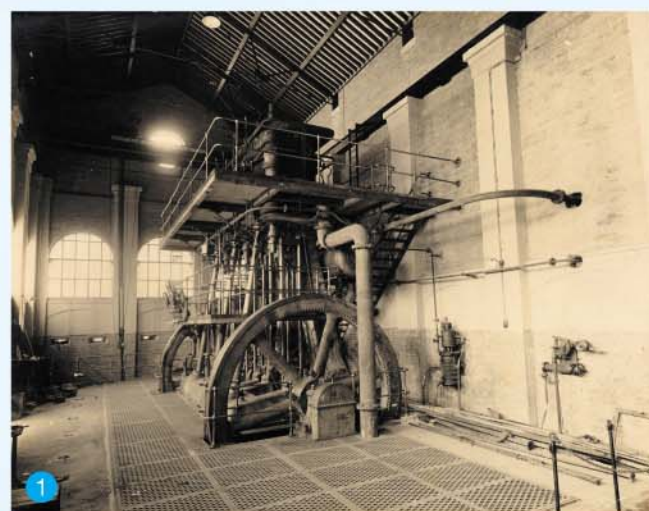
大潭篤原水抽水站煙囪
Tai Tam Tuk Raw Water
Pumping Station
Chimney Shaft

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背景 Background

大潭篤原水抽水站位於大潭灣內，為大潭原水收集系統的一個重要部分。大潭篤抽水站始建於1904年，最初是安裝蒸氣推動的水泵¹，將大潭中水塘的原水輸往半山的隧道，經處理後供應港島北岸的市區。隨着大潭水塘群最後的大潭篤水塘建成，抽水站在1917年後擴建至現今的格局。建築物在2009年9月被列為法定古蹟，予以重點保護。

Situated at Tai Tam Bay, the Tai Tam Tuk Raw Water Pumping Station is an important part of the Tai Tam raw water collection system. Construction of the Tai Tam Tuk Pumping Station commenced in 1904. Originally it made use of steam-driven pumps ¹ to lift raw water to the tunnel portal in the middle of the hill to provide supply to the city area on the Hong Kong Island North after treatment. After completion of the last reservoir in the Tai Tam Group of Reservoirs, the pumping station was expanded in 1917 to roughly the same configuration as today's. The pumping station was declared as a monument for conservation in September 2009.



抽水站為磚砌建築²，頂部最高離地約12米，分別有安放水泵的大堂³、鍋爐房、寫字間⁴及煤炭儲存間等。建築物頂部為瓦片木樑，由鐵鑄金字式構架承托，百多年來未作任何重大改動。抽水站一直沿用至今，成為水務署運作中最古舊的一個抽水站。

站內的抽水設備，經歷了蒸氣水泵及柴油發動水泵的年代，現時改用全自動化電腦監控的電動水泵操作。整個發展及改變過程中，均十分謹慎地進行，除水泵及儀器有實質的改變外，抽水站及外圍相連宿舍⁵、部分運煤炭用的小火車路軌，仍保持着百多年前的風貌。

The pumping station is a red brick structure ². The pitched roof is about 12 metres above ground. It has a pump hall ³, a boiler room, an office ⁴ and coal storage space. The pitched roof comprises Chinese-styled tiles supported on timber purlins which in turn rest on metal trusses made of cast iron frames and steel tie rods.

Over a hundred years, there have not been any major alterations to the roof structure. The pumping station has been in use all the time and become Water Supplies Department's (WSD) oldest pumping station still in operation.

The pumping station has experienced the eras of steam-driven pumping and diesel-driven pumping and now has adopted a fully computer-controlled automatic mode of operation by electric pumping. Throughout the whole process of development and change, WSD has taken a cautious attitude in the changes of the pumping station. Apart from the comprehensive changes in the pumps and other equipment, the environs of the pumping station including its historic staff quarters ⁵ and a section of the rail for conveyance of coal by carts are kept the same as a hundred years ago.



修復 Restoration

經過多年的風雨侵蝕，數年前開始，抽水站主泵室及鍋爐房的瓦頂漏水情況愈趨嚴重⁶。為保護文物，水務署進行了瓦頂修復工作，方案得到古物古蹟辦事處同意。方法主要將瓦片逐一拆除⁷，由技術工人檢驗，原好無損的重用，破損的則由特別燒製並跟原件同一大小的瓦片替代。更換完成後，再在瓦頂上漆上特別防水塗層，以防風雨侵蝕。整個修繕工作歷時5個月，耗資港幣約140萬元。工程在2005年中完成，完工後的瓦頂⁸在外觀上及功能上跟原來的無異。

Having exposed to weathering for a prolonged period, seepage through the pitched roof became serious ⁶. Bearing heritage conservation in mind, WSD employed specialists to restore the roof with the proposal vetted and agreed by the Antiquities and Monuments Office (AMO). The restoration works were also monitored by an independent specialist to make sure that the restoration works were carried out cautiously and in a professional manner. The restoration process basically involved the taking down of the Chinese tiles one by one ⁷ and reusing them if they were intact while bespoke slates of the same dimensions were fired in kilns in the Mainland for replacement of the damaged ones. A bituminous water-proofing coating was applied to the finished roof tiles for leakage protection. The whole restoration process took about 5 months at a total cost of about HK\$1.4 million. The restoration works were completed in mid 2005 with the roof's appearance and function remaining unchanged ⁸ as before.



接續的重點保護工作是修復抽水站的煙囪⁹。該磚砌煙囪始建於1904年，座落於抽水站以西的山腰上，為當時燃燒煤炭排煙之用。底部為一正方形基座，旁邊有拱形通風口，正中位置與抽水站窩爐排煙管連接。煙囪高19米，方形橫切面向上收窄至頂部約邊長1.7米正方形。西面外牆上安裝有生鐵鑄成的腳踏，可供攀爬至煙囪頂部。1950年代水泵改為用柴油發動後，煙囪因此荒廢並破損嚴重，除部分磚面受到嚴重侵蝕¹⁰外，煙囪頂端更為植物根部入侵而爆裂。

大潭篤原水抽水站內的方形煙囪，為香港水務歷史上碩果僅存的建築物，標誌著一個利用蒸氣水泵的時代的出現和結束。2006年水務署聯同古物古蹟辦事處的專家¹¹，完成詳細勘察並在2007年初展開修復工作，歷時5個月，費用達260萬元。修復後的煙囪¹²，跟百多年前的外觀無異。這極具歷史意義的煙囪，將會在大潭灣的山腰上，繼續為香港的供水歷史，作重要見證。

The restoration works then proceeded to the chimney ⁹ of the pumping station. The chimney was constructed in 1904 and was located in the middle of a slope west of the pumping station. It was used for the emission of smoke arising from the coal-fire operation. The base of the chimney was a square with a side opening and a smoke shaft connected with the boiler room of the pumping station. The chimney was about 19 metres high with a square cross-section reduced to about 1.7 metres at the top. The west face of the chimney was installed with cast-iron steps for access to the top. The chimney had not been in use since the 1950s and was much dilapidated ¹⁰.

The square chimney of the pumping station was unique of its kind in the history of waterworks and was the only one remaining in Hong Kong. It marks the emergence and end of an era of utilising coal-fire steam-driven pumping in this territory. Together with the experts from AMO ¹¹, WSD completed a thorough examination and started to restore the chimney in early 2007. The restoration works took 5 months at a total cost of about HK\$2.6 million. The restored chimney ¹² now looks the same as a hundred years ago. This chimney of great heritage value, standing upright in the hillside of Tai Tam Bay, will continue to be a testimony to the water supply history of Hong Kong.