百載◦流傳

STREAM OF MEMORIES

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發展局局長序言

大城小鎮的面貌，往往由其歷史建築定型及塑造。這種說法套用於香港可謂意義深遠，因為我們逐漸體會到保護歷史建築除了讓我們認識過去之外，亦令我們掌握城市的未來。

我很高興以古物事務監督的身份，宣布41項具歷史價值的水務設施建築列為法定古蹟。在過去個半世紀，這些供水設施成為香港社會發展過程中不可或缺的一環。值得一提的是，政府早於1860年首次興建可靠的食水供應系統，當時香港人口不斷膨脹，在短短20年間由7 000人急增至120 000人，及至1901年，人口再飆升一倍以上。為了應付供水需求大增的挑戰，政府推出了多項大型及創新的水務工程項目。現今在香港仔、薄扶林、大潭郊野公園、以至九龍及新界山谷之間，眾多水務設施建築依然屹立不倒，仍在運作的亦為數不少。這足以證明我們能克服不同地形的限制，建造了穩健的供水系統。

這令人引以為傲的41項建築，現已列為法定古蹟加以保護，其中包括水壩、隧道進水口、輸水道、石橋、看守員房舍及員工宿舍。不論規模大小，每一項建築都道出一個堅毅不屈的故事，和它們在歷史演變中所發揮的重要作用。香港殖民地時代的先驅、工程師、測量師，以及數以千計的建築工人攜手合作，開展水務設施相關的項目，並展現出令人讚嘆的遠見及建築規模。

這些歷史地標對社會意義重大，並鼓勵我們致力研究如何把這些豐富的文化遺產得以承傳下去。時至今日，我們喜見重要樓宇及地標的保存、保育及活化重新受到重視。透過認定這些歷史建築物，我們正正為下一代保持及培育多姿多采的歷史遺產。

這些建築位於本港各區多個遊人易達的優美景點，歡迎公眾人士前往參觀。繼這些建築宣布列為古蹟後，我們亦會積極推廣相關的教育工作。當郊野公園遊客及遠足人士欣賞到這些別具歷史價值的建築時，定必會有更深刻的體會。

本人謹此恭賀古物諮詢委員會，以及發展局、古物古蹟辦事處及水務署的同事，為保護香港基礎建設的文化遺產踏出重要一步。與此同時，我亦盼望大家時刻銘記前人的功勞，我們的社會能夠於發展初期獲得食水供應，他們實在功不可沒。他們的抱負與毅力為香港奠下基石，而我們珍重這些古蹟，就是對他們的一份敬意。

林鄭月娥

發展局局長
林鄭月娥
二零零九年九月十八日

Foreword by Secretary for Development

HISTORIC structures anchor and shape cities and towns. This maxim has an important application in Hong Kong where increasingly we recognise that historic preservation is as much about securing our future as it is about recognising our past.

In this context, and being the Antiquities Authority, I am very pleased to announce the declaration of 41 historic waterworks structures as statutory monuments. These water supply structures have played an integral part in the development of Hong Kong over the past one-and-a-half centuries. It is noteworthy that the first Government order for the establishment of a reliable supply of fresh water was made in 1860. The reason: Hong Kong's escalating population had in just 20 years grown from 7 000 to 120 000. By 1901 it had again more than doubled and the associated challenge to produce water to meet demand resulted in dramatic and innovative engineering solutions. Above Aberdeen and Pok Fu Lam, across the Tai Tam Country Park and in the valleys of Kowloon and the New Territories, structures stand and, in many cases remain operational, as evidence of the ability of our early settlers to create a viable water supply system across difficult terrains.

The 41 structures that are honoured, and now protected as historic monuments, include dams and tunnel inlets, long aqueducts and sturdy stone bridges, watchman's houses and staff quarters. Irrespective of size, each tells a tale of determination and an awareness of the role these structures will play in Hong Kong's unfolding history. Those pioneers in Hong Kong's early colonial era, the engineers and surveyors and the thousands of construction labourers, together worked on waterworks-related projects that reveal a breathtaking level of foresight and scale.

Landmarks such as these give meaning to our community and encourage us to think about the legacy of a rich and diverse cultural heritage we will leave for those who come after us. Today we are witnessing a renewed emphasis on the conservation, preservation and revitalisation of important buildings and landmarks. By recognising these historic monuments, we are sustaining and cultivating a rich and diverse heritage for future generations.

These structures are located in some of the most scenic parts of the territory accessible to the public. Following this declaration and our related public education efforts, country park visitors and hikers will no doubt appreciate the heritage trail they are taking with greater admiration.

I congratulate the Antiquities Advisory Board and my colleagues in the Development Bureau, the Antiquities and Monuments Office and the Water Supplies Department for taking these important steps in securing Hong Kong's heritage in the area of infrastructure. At the same time, I invite you to remember those who played such a vital role in securing our earliest supply of fresh water. These monuments are a tribute to their vision and tenacity, and today stand as the foundation stones of Hong Kong.

MRS CARRIE LAM
Secretary for Development
18 September 2009

古物諮詢委員會主席獻辭

本人很榮幸代表古物諮詢委員會，宣布位於本港各區的41項供水建築列為歷史古蹟。這些建築全都是供水系統基礎的獨立見證，在過去150年來肩負著本港供水穩定的重任。

這些古蹟有助深入認識本港的歷史。香港可算是一個年輕的城市，但發展公共供水系統所取得的成就，卻可追溯至19及20世紀。前人爭取成功的決心，有目共睹。成果造就了今日以旅遊、金融及服務而聞名遐爾的國際中心——一個時刻展現自信的城市。

在我們為未來努力之際，亦必須學會欣賞由往績塑造出來的香港特有氣質及精神。當我們目睹這些供水建築古蹟，無不感到讚嘆、敬佩及欣賞，因為當中彰顯出香港長久以來永不言敗的精神，亦顯示我們有持續發展現今及未來社會的決心。

對於水務署一直默默耕耘，並與本委員會、文物保育專員辦事處及古物古蹟辦事處合作無間，努力為供水設施爭取歷史古蹟地位，本人謹此表示謝意。透過將水務設施列為古蹟，我們在保育及推廣本港古蹟方面的工作，定能更上一層樓。

陳智思

古物諮詢委員會主席
陳智思
二零零九年九月十八日

Message by Chairman of Antiquities Advisory Board

ON behalf of the Antiquities Advisory Board, I am very pleased to announce the naming of 41 structures associated with the supply of water across Hong Kong as historic monuments. Each of these structures stands as a testament to the foundations of a supply system which has helped sustain our city for more than 150 years.

Monuments such as these offer great insights into our history. We may be a relatively young city, but our achievements in developing an efficient public works system for supplying fresh water back in the 19th and 20th centuries reflect a determination to succeed. The result is a city that today is renowned as an international centre of tourism, finance and services - a city that is confident of itself and the services that underpin its well being.

As we rush towards the future, it is important that we appreciate past achievements that form our city's character and ethos. Monuments such as these water supply structures are to be marvelled at, respected and recognised. They epitomise Hong Kong's long standing 'can do' philosophy and a determination that continues to shape the city of today and the community that we will become in the future.

I would like to express my appreciation of the work undertaken by the Water Supplies Department and its seamless cooperation with our Board, the Commissioner for Heritage's Office and the Antiquities and Monuments Office in working to secure this heritage status. By declaring these structures as monuments, we further our efforts to preserve and promote our heritage.

BERNARD CHAN
Chairman, Antiquities Advisory Board
18 September 2009

水務署署長獻辭

從開鑿第一口水井為公眾供水開始，至今日我們從廣東輸入近八成的食水，為廣大香港市民有效供水向來都是一項挑戰。事實上，我們的抱負與承擔，已成功確保市民在有需要時，可隨時隨地取得這種珍貴的自然資源。

本紀念冊中所載的每項古蹟，均能描繪香港個半世紀歷史中的重要片段，以及本港市民如何享用公共供水的經過。我們的建築物，都反映了期間建築設計上的不斷轉變。橋樑、水壩及導流壩等歷史建築，多就地取材，以天然岩石建造，與今時今日的人工建材相比，截然不同。員工宿舍、監測站及看守員房舍的設置，無不道出了駐守地盤人員的承擔，以及早年保證供水穩定的決心。

這些事跡勢必薪火相傳，延續下去。時至今日，水已經成為全球最珍貴的資源之一，聯合國更認定水是一項基本人權。有賴這些歷史悠久的水務古蹟，令香港每位市民都能在人人平等、無分彼此的情況下，獲得安全可靠的食水供應。

作為香港的公共供水機構，我們現在將重點集中於改善供水技術及效率的課題上。儘管如此，把這些供水建築列為古蹟，將會時刻提醒我們前人的抱負與遠見，及其對於香港這世界級都市演進的重要性。對為確保我們的歷史能夠永垂不朽，付出無數努力的人士，本人謹此致敬。

馬利德

水務署署長
馬利德
二零零九年九月十八日

Message by Director of Water Supplies

DELIVERING water efficiently to the public of Hong Kong has always been a challenge - from the time the first wells were dug for a public water supply to now when almost 80 per cent of our supply is piped to us from Guangdong. Vision and commitment have succeeded to ensure this great natural resource reaches people where and when they need it.

Each of the monuments we honour in this book tells an important part of the story of Hong Kong's history over the past one-and-a-half centuries and how the city has enjoyed a public water supply. We have structures that reflect the changing architectural influences of past decades. Bridges, dams and weirs were built from natural rock and other readily available materials that predate today's manufactured products. There are staff quarters, monitoring stations and a watchman's house that speak of the on-site commitment of construction crews and the early days of water security.

And, of course, the story will continue. Water today is one of the world's most valuable resources. It is also recognised by the United Nations as fundamental human rights. In Hong Kong, thanks in large part to the legacy we are honouring through these monuments, everyone has access to safe and secure drinking water, equitably and without discrimination.

While our focus today, as the provider of Hong Kong's public water supply, is on improving water supply technologies and efficiencies, the historic monument status awarded to these supply structures is an ongoing reminder of the vision and foresight that is so important in the evolution of a World City. I would like to acknowledge the work of all who have been involved in ensuring that our history is not forgotten.

MA LEE TAK
Director of Water Supplies
18 September 2009

薄扶林

POK FU LAM

薄扶林水塘 1871

薄扶林水塘是香港整個水塘網絡的先驅。經擴建的薄扶林水塘在1871落成，容量達6 800萬加侖(31萬立方米)。

Pok Fu Lam Reservoir 1871

Pok Fu Lam Reservoir is the forerunner to a network of reservoirs across Hong Kong. The extended Pok Fu Lam Reservoir, when completed in 1871, has a capacity of 68 million gallons (310 000 cubic metres).

於19世紀中期，香港人口不斷增加。全港12萬人口，大部分居住在港島，即當時的維多利亞城。當時，居民仍然依賴井水和山澗水作為主要水源。由港府開鑿的四口水井，負責為迅速發展的維多利亞城提供用水，但島上其他地區的村民卻需自行修建竹管，將山澗水引流至其居所和耕地使用。

1859年，時任港督羅便臣爵士(Sir Hercules Robinson)認為，可靠的食水供應已成為香港經濟發展不可缺少的一環，遂宣布懸紅1,000英鎊，徵求可行的供水方案。當時任職英國皇家工程部工程監督的羅寧(S B Rawling)建議在薄扶林谷興建一個儲水量為3 000萬加侖(14萬立方米)的水塘。由於薄扶林谷地勢陡峭，能夠提供最大的水流量，加上地點鄰近人煙稠密的心臟地帶，足證是興建水塘的理想地點。

根據羅寧的設計，薄扶林水塘需要建造一座15呎(4.6米)高的石壩，橫跨薄扶林谷。惟由於預算有限，原設計需要作出相應改動。水塘於1863年落成時，儲水量縮減至200萬加侖(9 100立方米)。對於此規模的水塘能否解決供水問題，各界評論紛紛表示關注。及至1863年，香港每日的用水量已達50萬加侖(2 300立方米)，按此計算，水塘的儲水量只能夠提供四日的用水量。當局很快意識到水塘儲水量不足的問題，隨即下令推行一系列水塘擴建工程。工程於1866年至1871年間進行。

擴建工程包括在原有水塘的上游擴建一個水塘，將整體儲水量增加至6 800萬加侖(31萬立方米)。擴建後的水塘集水區在陡斜地面佔地416英畝(168公頃)。這個後建的薄扶林水塘，至今仍然為廣大市民服務。水塘的基礎設施充分反映出當時的建築風格，新古典風格與實用中式設計元素互相結合，是早期東西方建築薈萃的雛形。

前看守員房舍融合了殖民地風格的白漆牆壁、以古典花崗石柱支撐的蓋頂長廊及傳統中式瓦片鋪成的斜尖屋頂。水塘的量水站用作監測存水的流量和深度，牆壁的一端呈半圓形，以層列花崗石鋪築而成。量水站最顯著的特色，莫過於設有屬意大利文藝復興時期建築風格的鑲有石面粗琢拱楔的輸水隧道進水口。

薄扶林計劃反映了當年的工藝水平。橫跨山腰支流的石橋，以花崗石砌成，飾有半圓拱或平圓拱。石橋建以花崗石蓋頂，砌石均有精心雕琢的削邊，而石面則為網狀或蟲迹狀，反映意大利文藝復興風格的影響。

維多利亞城及其西面一帶能夠蓬勃發展，主要歸功於薄扶林供水計劃。時至今日，薄扶林水塘和水壩仍然是一個活生生的例子，見證著紮根於本港供水系統的開創精神。

BY the middle of the 19th century, majority of Hong Kong's growing population of 120 000 people lived on Hong Kong Island, known as the City of Victoria. Until this time, people relied on wells and streams as their primary sources of water. Four government-built wells supported the burgeoning City of Victoria while in other areas of the island, villagers constructed their own bamboo aqueducts to divert water from mountain streams to their homes and fields.

In 1859, recognising that a reliable supply of fresh water was integral to Hong Kong's economic development, the then Governor, Sir Hercules Robinson, announced an award of 1,000 pounds to anyone who could produce a viable water supply proposal. S B Rawling, a Clerk of Works in the British Royal Engineering Department, suggested the construction of a 30-million-gallon (140 000 cubic metres) reservoir in the Pok Fu Lam valley. With its steep slopes to maximise water flows and its proximity to the densely populated heartland of Hong Kong, Pok Fu Lam proved to be an ideal location.

Pok Fu Lam Reservoir, designed by S B Rawling, involved a 15-feet high (4.6 metres) masonry dam stretching across Pok Fu Lam valley. However, budgetary constraints soon resulted in changes to the original design. Storage capacity at the reservoir, by the time it was completed in 1863, had been reduced to 2 million gallons (9 100 cubic metres). Many critics concerned that a reservoir of this size could not resolve the water supply problem. By 1863, daily water demand had reached 500 000 gallons (2 300 cubic metres) but, at that level, the reservoir could hold just four days worth of supplies. The authorities quickly accepted the capacity shortfall and ordered a series of extensions to the reservoir that were undertaken between 1866 and 1871.

The additional work included an expanded reservoir constructed upstream of the original one to boost overall capacity to 68 million gallons (310 000 cubic metres). The reservoir's catchment had been extended to cover 416 acres (168 hectares) of steep land. This second reservoir continues to serve Hong Kong today. Its infrastructure closely mirrors the architectural influences of the time combining Neo-Classical style with pragmatic Chinese design elements - an early version of East meets West architecture.

A former watchman's cottage combines colonial style white painted walls, a sheltered veranda framed by classical granite columns and a pitched roof made from traditional Chinese tiles. The reservoir's gauge basin, where the flow and depth of water are monitored, features coursed granite walls shaped in a semi-circle at one end. The tunnel inlet with rock-faced rusticated voussoirs finished in Italianate Renaissance style are regarded as the most outstanding feature of the gauge basin.

The Pok Fu Lam scheme reflects a level of craftsmanship from that period. Masonry bridges that span feeder streams in the area are built in granite with semi-circular or segmented arches. Bridges feature granite copings and the ends of stones have been carefully finished with chamfered margins and reticulated or vermiculated surfaces – a reflection of Italianate Renaissance influence.

The City of Victoria and its western fringes flourished, in large part as a result of the development of the Pok Fu Lam water supply scheme. The reservoir and dam remain vivid examples of the pioneering spirit that formally set in place in the city's water supply system.

1

薄扶林水塘前看守員房舍

Pok Fu Lam Reservoir Former Watchman's Cottage 1860-1863

2

薄扶林水塘量水站
Pok Fu Lam Reservoir Gauge Basin 1863

3

4

薄扶林水塘石橋

Pok Fu Lam Reservoir Masonry Bridges 1863-1871

5

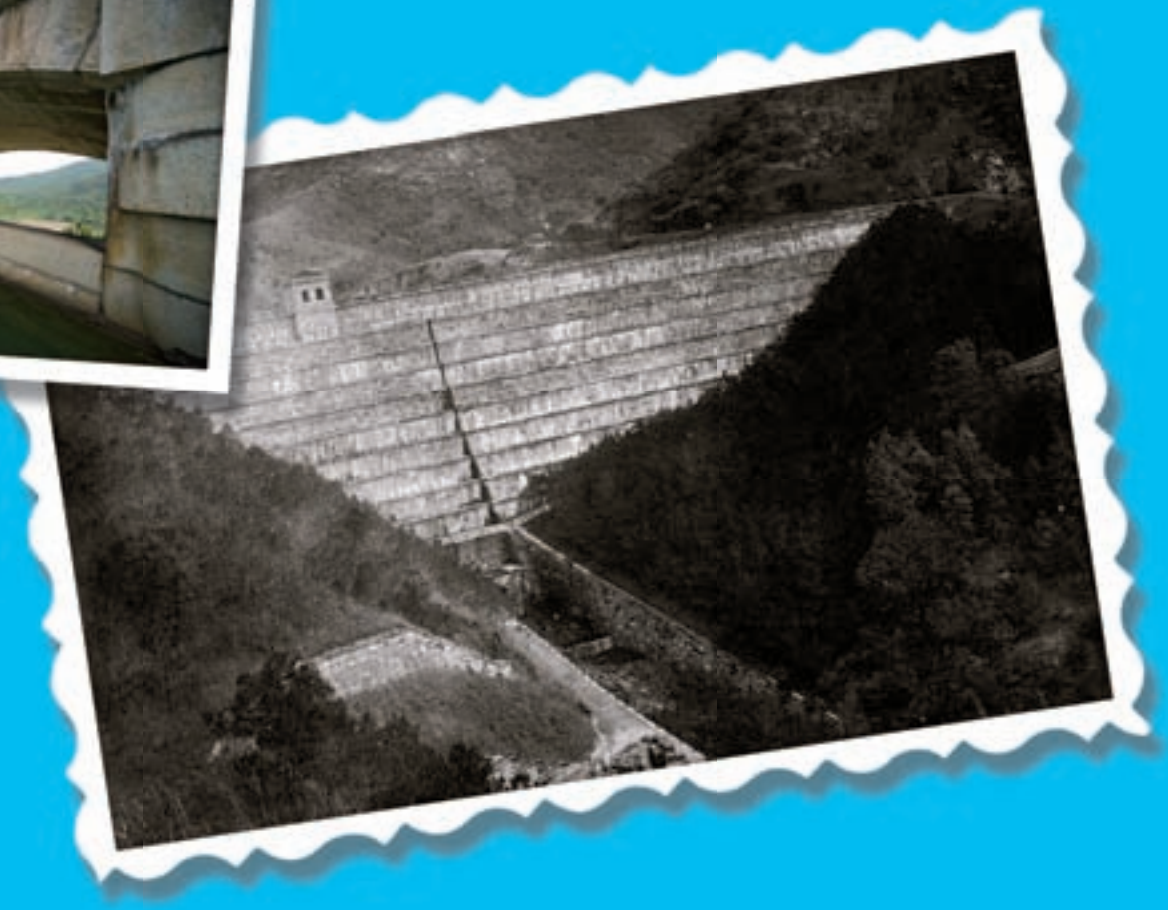
6

薄扶林水塘石橋

Pok Fu Lam Reservoir Masonry Bridges 1863-1871

大潭

TAI TAM



大潭篤水塘 1912 - 1917

大潭水塘群始建於1883年，由大潭上水塘開始，至大潭篤水塘於1918年揭幕為止，歷時共35年。

Tai Tam Tuk Reservoir 1912 - 1917

Tai Tam Group of Reservoirs took some 35 years to complete – from commencement of construction of the Tai Tam Upper Reservoir in 1883 until the opening of Tai Tam Tuk Reservoir in 1918.

貫穿大潭郊野公園的水塘群及水務設施，象徵著19世紀後期港府官員的主要成就。當時中西區人口稠密，為了減輕該區的壓力，政府遂建立這個供水系統，以便城市人口向港島東一帶外移。大潭水務計劃的概念由政府總測量師派斯(J M Price)於1873年提出，堪稱「當時規模最龐大的水務計劃」。

大潭水塘、水壩及相關設施亦開創了工程革新的新紀元。雖然大潭一帶能夠開闢更大的集水區，亦具備日後進一步發展水壩與水塘的潛力，但卻存在著一個明顯缺陷： 大潭與港島主要人口集中地區被山嶺分隔，發展時必須解決將食水貫穿黃泥涌的難題。

派斯毅然接受這項挑戰，建議挖掘一條貫穿黃泥涌山嶺的隧道管道，並與稱為寶雲輸水道的新建地面管道相連。這條管道依灣仔山勢而建，最終將食水輸送至亞賓尼谷(即現時上紅棉路一帶)多個濾水池及一個儲水庫。可惜，這項計劃不幸遭逢始料不及的經濟萎縮，再加上1874年的一場颱風導致當時本港經濟中心—中環海傍受到破壞，政府需要動用巨額公帑進行修復工程，雄心萬丈的大潭供水計劃因此而被逼擱置。

可是，改善及擴展食水供應的壓力，依然有增無減。於1882年，殖民地政府的軍事當局正式投訴，本港華人聚居的地區衛生情況惡劣，食水嚴重短缺。在殖民地衛生專員就「香港惡劣的衛生狀況」提交一系列報告後，當局再次審閱當初的供水計劃，予以修訂後獲批動工。

時至今日，大潭計劃的所有水塘及水壩，仍然是本港食水供應的重要紐帶，亦印證對20世紀香港城市、社會及經濟發展功不可沒的創新工程。大潭計劃的第一期建設於1883年動工，往後30年間工程進度多番面臨挑戰，亦不斷增添新元素。

THE network of reservoirs traversing Tai Tam Country Park denoted a major achievement by Hong Kong Government officials in the late 19th century. It established a water supply system that would enable the city's population to move to the eastern areas of Hong Kong Island, relieving pressure on the then densely populated Central and Western districts. The concept of the Tai Tam Water Works Scheme, as put forward by the Government's Surveyor General, J M Price, in 1873, was known as the 'grandest water scheme of its day'.

Tai Tam's reservoirs, dams and associated facilities also heralded a new era in engineering innovations. While the Tai Tam area offered a larger water catchment and the potential for future reservoir and dam developments, it had one significant drawback. A mountain range separated it from Hong Kong Island's main populated areas. The difficulty of transferring water through Wong Nai Chung needed to be resolved.

J M Price rose to the challenge. His solution was to excavate a tunnel aqueduct through the Wong Nai Chung mountains and link it to a new aboveground conduit, to be known as the Bowen Aqueduct. This aqueduct would follow the contours of Wan Chai, ultimately feeding water into some filter beds and a storage tank in the Albany Valley (today's upper reach of Cotton Tree Drive area). This plan, however, unfortunately coincided with an unexpected economic recession and a typhoon which in 1874 devastated the Central waterfront, at that time the city's economic hub. With a heavy demand on public funds for waterfront rehabilitation, the ambitious Tai Tam water supply plan was put on hold.

However, the pressure for an improved and more expansive fresh water supply continued to grow. By 1882, the Colonial Government's military authorities had filed formal complaints about the lack of hygiene and acute water shortages in the city's Chinese districts. The original supply scheme was reviewed and, following a series of reports on the 'dire sanitary conditions of Hong Kong' by the Colonial Sanitary Commissioner, it was finally modified and given the green light for construction.

Today, the entire Tai Tam scheme of reservoirs and dams remain an important link in the city's supply of fresh water. They also stand as testaments to the innovative engineering that underpinned much of Hong Kong's urban, social and economic development throughout the 20th century. Construction on its first phase began in 1883 and the Tai Tam Scheme continued to raise challenges of progress and evolve new elements over the next three decades.

7

大潭上水塘水壩

Tai Tam Upper Reservoir Dam 1883-1888

8

大潭上水塘水掣房

Tai Tam Upper Reservoir Valve House 1883-1888

9

大潭上水塘石砌輸水道

Tai Tam Upper Reservoir Masonry Aqueduct 1883-1888

10

大潭上水塘石橋
Tai Tam Upper Reservoir Masonry Bridge 1883-1888

9 10

大潭上水塘石砌輸水道及石橋

Tai Tam Upper Reservoir Masonry Aqueduct and Masonry Bridge 1883-1888

大潭上水塘輸水隧道進水口
Tai Tam Upper Reservoir
Tunnel Inlet 1883-1888

11

大潭上水塘記錄儀器房
Tai Tam Upper Reservoir Recorder House 1917

12

寶雲輸水道
The Bowen Aqueduct 1885-1887

寶雲輸水道 21 孔拱券段
The Bowen Aqueduct 21-Arch Section

12a

寶雲輸水道
The Bowen Aqueduct 1885-1887

13

大潭副水塘水壩
Tai Tam Byewash Reservoir Dam 1904

14

大潭副水塘水掣房
Tai Tam Byewash Reservoir Valve House 1904

15

大潭中水塘水壩

Tai Tam Intermediate Reservoir Dam 1904-1907

16

大潭中水塘水掣房

Tai Tam Intermediate Reservoir Valve House 1904-1907

17

大潭篤水塘水壩
Tai Tam Tuk Reservoir Dam 1912-1917

18

大潭篤水塘水掣房
Tai Tam Tuk Reservoir Valve House 1917

19

大潭篤水塘紀念碑
Tai Tam Tuk Reservoir Memorial Stone 1918

20

21

22

23

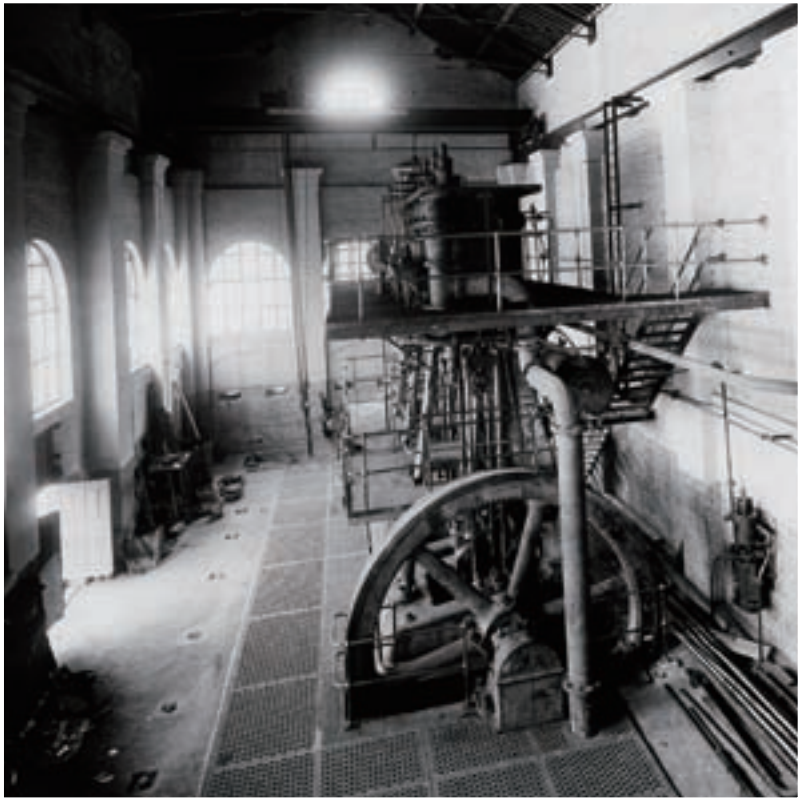
大潭篤水塘石橋

Tai Tam Tuk Reservoir Masonry Bridges 1907

24

大潭篤原水抽水站

Tai Tam Tuk Raw Water Pumping Station 1907



24a

大潭篤原水抽水站機器房

Tai Tam Tuk Raw Water Pumping Station Engine Hall 1907

25

大潭篤原水抽水站煙囪

Tai Tam Tuk Raw Water Pumping Station Chimney Shaft 1907

26

大潭篤原水抽水站高級員工宿舍

Tai Tam Tuk Raw Water Pumping Station Senior Staff Quarters 1905

27

大潭篤原水抽水站員工宿舍

Tai Tam Tuk Raw Water Pumping Station Staff Quarters 1905-1907

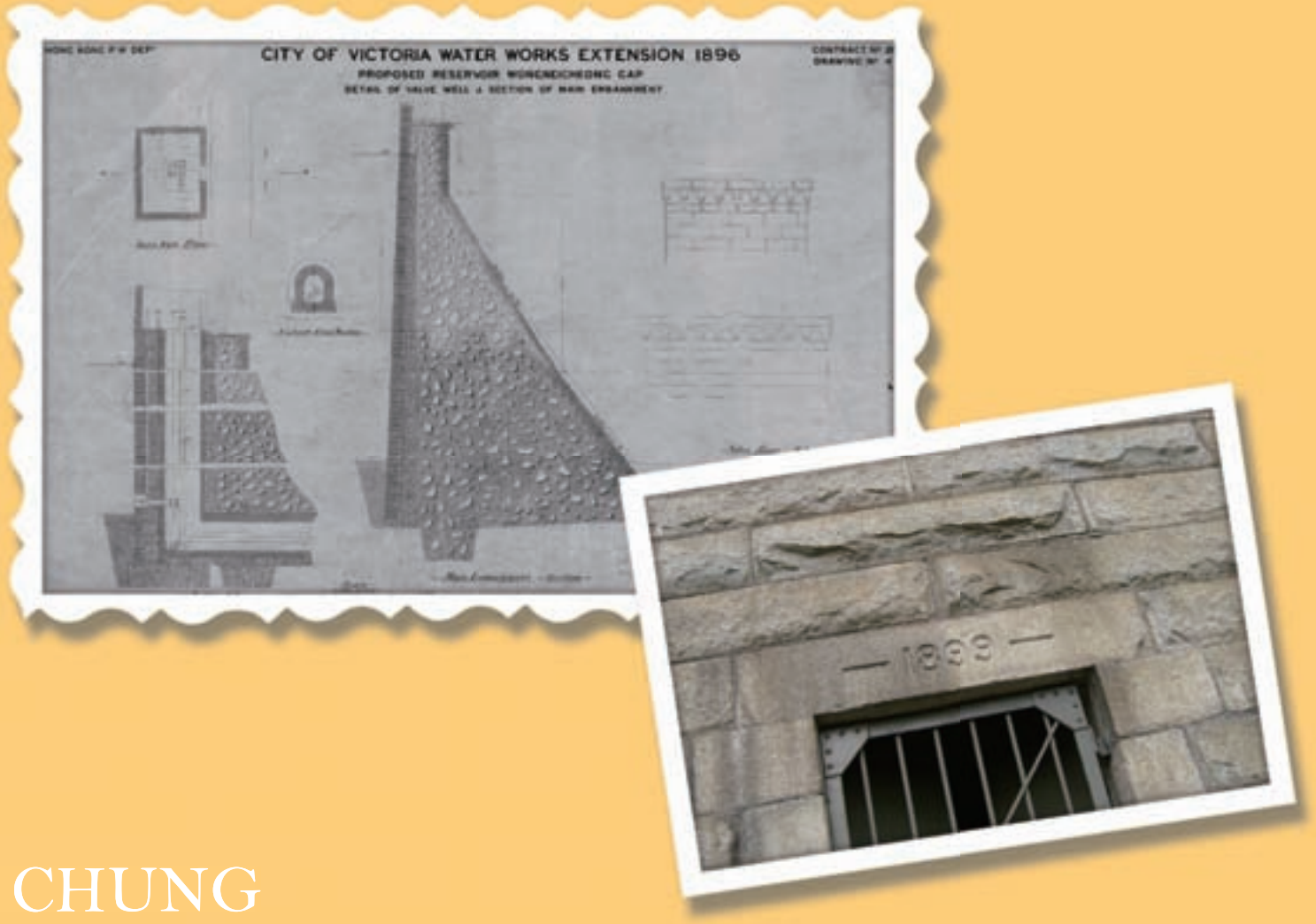
28

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 1936

黃泥涌

WONG NAI CHUNG



黃泥涌水塘 1899

黃泥涌水塘如今已成為家庭和學校旅行的熱門地點。年輕人可以划艇暢遊，並沿著水塘四周及上方的遠足徑探索大潭郊野公園。
建築歷史學家認為，水壩、水掣房和導流壩的粗琢石，令人聯想起「雄偉的佛羅倫斯建築」。

Wong Nai Chung Reservoir 1899

Today, Wong Nai Chung Reservoir is a popular destination for families and school trips with youngsters enjoying boat excursions and exploring the Tai Tam Country Park along trekking trails around and above the reservoir. Architectural historians describe the rusticated stonework of the dam, valve house and weir as reminiscent of the 'monumentality of Florentine style of architecture'.

黃泥涌水塘作為公眾划艇公園的知名度，如今已遠超過作為食水來源的角色。然而，在近一個世紀的時間，這個水塘曾經是香港供水系統的一個重要部分。黃泥涌水塘坐落於黃泥涌峽之中，一邊俯瞰深水灣的優美海景，另一邊則遠望銅鑼灣和灣仔的高樓大廈。黃泥涌水塘是香港第三個最古老的水塘。

政府有見當時香港的衛生狀況並不樂觀，尤其在華人聚居的寮屋區更甚，促使政府採納興建黃泥涌水塘的計劃。1894年，瘟疫爆發，政府遂在1896年下令動工興建黃泥涌水塘。

黃泥涌水塘於1899年落成，是繼薄扶林和大潭上水塘後建成的第三個水塘。黃泥涌水塘的儲水量遠較之前建造的兩個水塘少，只有約2 700萬加侖(12萬立方米)，相當於薄扶林水塘儲水量約三成八。在20世紀的大部分時間中，黃泥涌水塘一直是大潭水塘群以外的重要輔助水源。現存具歷史價值的構築物包括一座高約60呎(18.3米)、長約270呎(82.3米)的石壩、一個水掣房和一個導流壩。

隨着其他較大型的水塘相繼落成，黃泥涌水塘供水的角色續漸減退。到了1960年代末期，該水塘對本港的供水服務已不再重要。當時的市政局計劃將水塘改建成康樂中心。黃泥涌水塘遂於1986年成為本港首個划艇公園，開放給市民大眾使用。

WONG Nai Chung Reservoir is better known as a public boating park than a source of fresh water. However for almost a century, the reservoir was an important element within the city's water supply system. Nestled in Wong Nai Chung Gap where it overlooks the waters of Deepwater Bay on one side and the high-rise buildings of Causeway Bay and Wan Chai on the other, the reservoir is the third oldest in Hong Kong.

Plans to build Wong Nai Chung Reservoir followed the Government's recognition of alarming sanitation conditions, particularly in the city's shanty towns that were home at the time to a large proportion of the city's Chinese population. These concerns, coupled with a plague outbreak in 1894, resulted in the commissioning of the reservoir project in 1896.

Completed in 1899, the reservoir was the third to be built after Pok Fu Lam Reservoir and Tai Tam Upper Reservoir. Considerably smaller than its predecessors, it was constructed with a storage capacity of 27 million gallons (120 000 cubic metres) – about 38 per cent of the Pok Fu Lam Reservoir's capacity – and for much of the 20th century it was operated as an important supplementary source to the Tai Tam Group of Reservoirs. Its surviving historic structures include a masonry dam, almost 60 feet (18.3 metres) high and 270 feet (82.3 metres) long, a valve house and a weir.

Over time, the construction of larger reservoirs meant Wong Nai Chung Reservoir became superfluous to needs. By the late 1960s it was no longer essential to Hong Kong's water supply and the then Urban Council began making plans to turn it into a centre for recreation. In 1986, it opened as the city's first public boating park.

29

黃泥涌水塘水壩

Wong Nai Chung Reservoir Dam 1899

30

黃泥涌水塘水掣房

Wong Nai Chung Reservoir Valve House 1899

31

黃泥涌水塘導流壩

Wong Nai Chung Reservoir Weir 1899

九龍

KOWLOON

九龍水塘 1901 - 1910

九龍水塘最初的集水區佔地438英畝 (177公頃)，每日供水量達750 000加侖 (3 400立方米)。雖然興建九龍水塘的原意是滿足九龍的用水需求，但當局其後興建首條海底輸水管，將九龍水塘的食水輸送到維港對岸。

Kowloon Reservoir 1901-1910

The Kowloon Reservoir originally has a catchment of 438 acres (177 hectares) and a daily supply capacity of 750 000 gallons (3 400 cubic metres) of water. Built to meet the needs of Kowloon, its waters were subsequently piped across the harbour to Hong Kong Island along the first supply pipeline between Kowloon and Hong Kong Island.

於1860年以前，九龍半島的居民寥寥可數，井水和地下水是他們唯一的食水來源。1898年，英國政府租借新界後，認為20世紀的來臨將會帶動九龍一帶的發展，當中以九龍半島為甚。完善的食水供應網絡，將成為發展過程中的重要一環。

九龍水塘是在九龍興建的首個水塘，也是九龍水塘群的首個部分。九龍水塘群還包括了石梨貝水塘、九龍接收水塘及九龍副水塘。隨著這個供水項目的發展，九龍半島一帶從原先的軍事基地，迅速發展成配備20世紀初期都市化生活所需的市區。

九龍重力自流供水系統推出後，當時的工務局派出工程師傑斯(L Gibbs)率領勘探隊尋找合適地點。傑斯開始在九龍和新租借的新界一帶勘探地形。勘探隊最終覓得了一片位於界限街(九龍半島與新租借區域的分界線)以北的谷地，因該處集水量較大，建造地點亦較為方便。九龍水塘遂於1901年動工。

水塘位於筆架山以西、針山以南一處由灌木覆蓋的山谷，包括兩座水壩、儲水池、濾水池，以及一條從水塘直達油麻地抽水站的水管。工程於1910年竣工時，新落成水塘的儲水量達3.5億加侖(1.6百萬立方米)，九龍半島的發展面貌亦自此急劇轉變。

UNTIL 1860, the few people living on the Kowloon Peninsula relied solely on well water and subterranean water as their sources of fresh water supply. The British authorities, after negotiating the lease of the New Territories in 1898, decided that the arrival of the 20th century would herald the development of Kowloon and, in particular, the Kowloon Peninsula. An efficient fresh water supply network would be integral to this development.

The Kowloon Reservoir became the first reservoir to be built in Kowloon and the first element of what was to become the Kowloon group of reservoirs which also included Shek Lei Pui Reservoir, Kowloon Reception Reservoir, and Kowloon Byewash Reservoir. With the development of this water supply programme, the Kowloon Peninsula area quickly changed from its primary role as a military base to that of an urban area with all the associated demands of early 20th century urban living.

When the Kowloon Waterworks Gravitation Scheme was initiated, the search for a suitable site was led by an engineer with the then Public Works Department, L Gibbs, who undertook a topographical survey across Kowloon and the newly-leased areas of the New Territories. In terms of rich water catchments and ease of construction access, a tract of land north of the Boundary Street, which marked the demarcation line between the Kowloon Peninsula and the newly added territories, was identified by the inspection team and work on the Kowloon Reservoir began in 1901.

The reservoir is set in a bush-clad valley overlooked by Beacon Hill to the west and Needle Hill to the south and consists of two dams, storage tanks, filter beds and a pipeline that connected the reservoir to the Yau Ma Tei Pumping Station. By the time the project reached completion in 1910, the system could store more than 350 million gallons (1.6 million cubic metres) of water and had radically changed the profile of development across the Kowloon Peninsula.

32

九龍水塘主壩

Kowloon Reservoir Main Dam 1901-1910

32

九龍水塘主壩
Kowloon Reservoir Main Dam 1901-1910

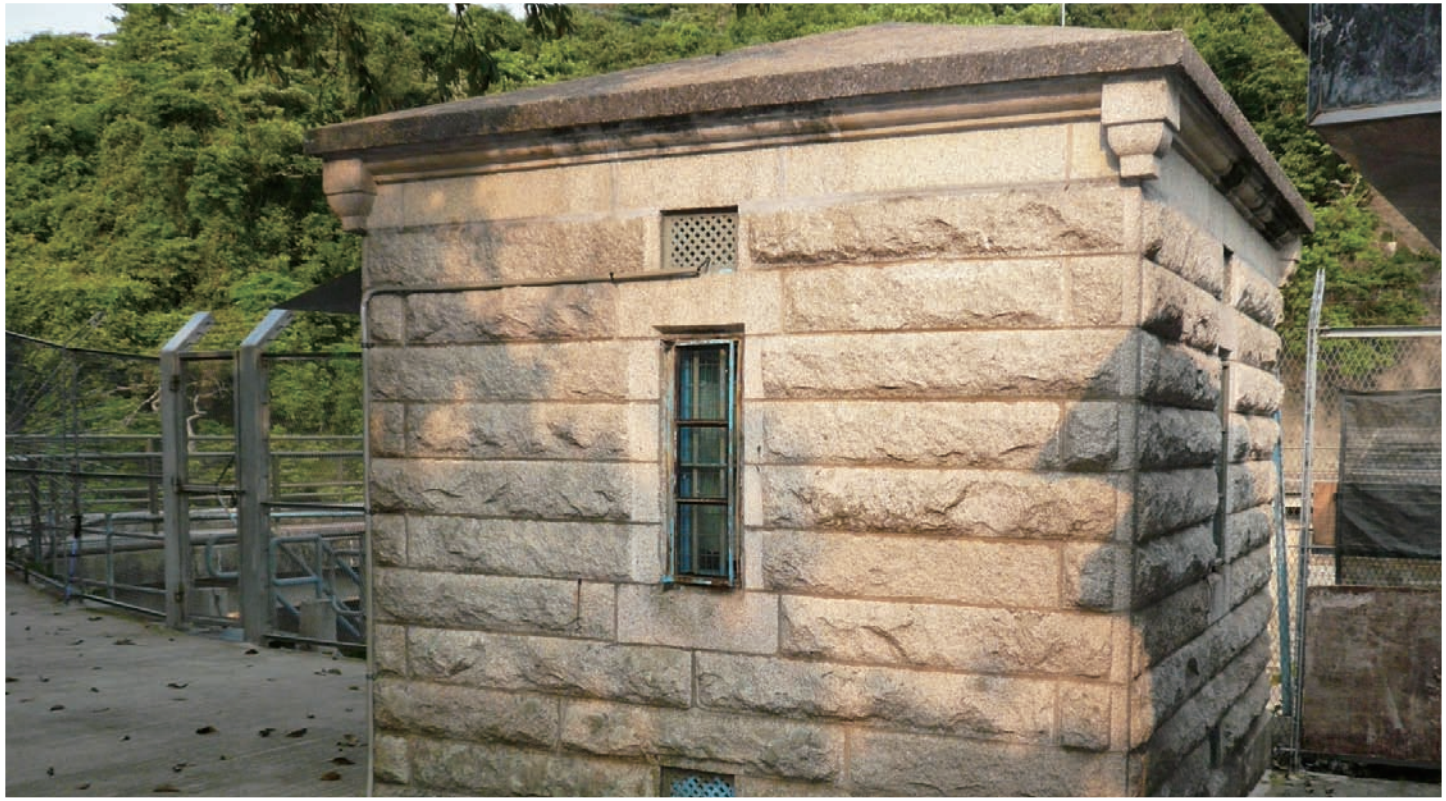
33

九龍水塘主壩水掣房

Kowloon Reservoir Main Dam Valve House 1901-1910

34

九龍水塘溢洪壩
Kowloon Reservoir Spillway Dam 1901-1910



35

九龍水塘溢洪壩記錄儀器房

Kowloon Reservoir Spillway Dam Recorder House 1901-1910

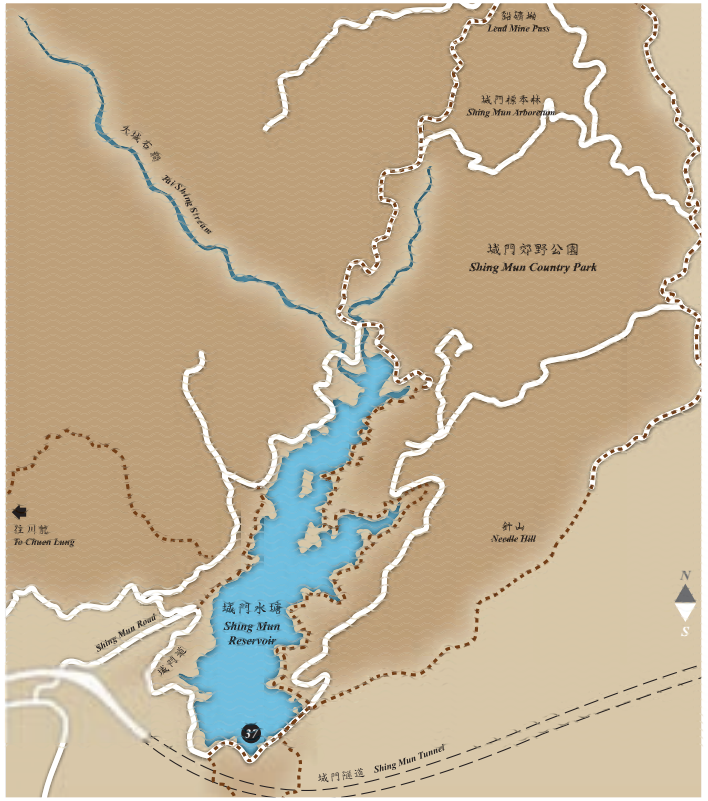
36

九龍水塘記錄儀器房
Kowloon Reservoir Recorder House 1901-1910

城門

SHING MUN


THE MAIN DAM IS 230 FEE
MESSRS. BINNIE. DEACON & GO
TED UNDER G. B. GIFFORD HUL
C. E. RESIDENT ENGINEER.
NISI DOMINUS FRUSTRA



城門水塘 1937

水塘最初稱為城門水塘，但為了慶祝英皇喬治五世登基銀禧紀念，水塘於1935年易名為銀禧水塘。時至今日，市民大眾一般會沿用其本身的名稱 —— 城門水塘。

Shing Mun Reservoir 1937

The reservoir was originally called Shing Mun Reservoir but in 1935 was renamed as Jubilee Reservoir to celebrate the Silver Jubilee of King George V's on throne. Today, it is generally referred to by its original name – Shing Mun Reservoir.

踏入20世紀初，隨著港島、九龍及新界地區的人口急劇膨脹，提供可靠的供水遂成為政府的重點工作。1901至1931年間，香港人口由284 000人急增至840 000人。此際，政府需再次正視人口數字，以及為興建下一個水塘盡速選址。政府最後選定在荃灣、葵涌和沙田山嶺之間、地勢較低的城門谷興建水塘。

城門供水計劃的構思始於1923年。這項浩大的建造工程需要在峽谷口建造一個巨型堤壩收集雨水，形成一個大型水塘，日後為九龍及港島市民供應食水。這項工程於1923年動工，分三期進行，歷時達14年。工程於1935年達到頂峰，地盤工作的人員超過2 200人。

落成的水塘總容量達30億加侖(13.6百萬立方米)，食水經水管輸送至九龍半島的市區，自1935年第二條海底輸水管建成後，則輸送至港島中環。1938年鋪設的第三條海底輸水管亦沿用相若的路線，連接城門水塘與中環。城門水塘在戰前遂成為最主要和儲水量最大的水塘，負責為九龍及港島供水。

BY the turn of the 19th century, the provision of reliable water supplies was a major focus, motivated by explosive population growth across Hong Kong Island, Kowloon and New Territories. From 1901 to 1931, population increased from 284 000 to 840 000. It was time once again to look at demographics and where the next reservoir system could be effectively located. The low-lying Shing Mun Valley, nestled in the range of mountains surrounding Tsuen Wan, Kwai Chung and Sha Tin, was selected.

Plans for construction of the Shing Mun Water Supply Scheme were formulated in 1923. This was an ambitious construction project involving a gigantic dam at the mouth of a gorge designed to retain rainwater and form a huge reservoir which would ultimately contribute to fresh water supplies for Kowloon and Hong Kong Island. Construction began in 1923 and continued in three phases over a 14-year period. The workload reached a peak in 1935, when more than 2 200 workers were employed on site.

The total capacity of the completed reservoir reached 3 billion gallons (13.6 million cubic metres) of water which was piped initially to the urban areas of Kowloon Peninsula and, from 1935 when the second cross-harbour pipeline was completed, to Central, on Hong Kong Island. A third pipeline, laid in 1938, also followed a similar route linking Shing Mun Reservoir to Central making the reservoir the largest capacity reservoir supplying water to both Kowloon and Hong Kong Island during the pre-war years.

37

城門水塘紀念碑
Shing Mun Reservoir Memorial Stone 1937

香港仔

ABERDEEN

香港仔水塘 1929 - 1932

香港仔水塘分上、下兩個水塘，標誌著港島最後一個水塘發展項目。

Aberdeen Reservoir 1929 -1932

Aberdeen Reservoir, with its upper and lower reservoirs, marks the final reservoir development on Hong Kong Island.

港島西面地區一直主要依賴薄扶林水塘供水，為了提高供水的可靠性，催生了香港仔河谷供水計劃。雖然擁有來自大潭水塘群的供水，但連接港島西面的水管，直徑只有10吋(254毫米)，實不足以應付該區的供水需求。政府當前有兩個選擇：斥巨資安裝新水管改善輸水系統，又或興建新水塘。鋪設新管道須穿越崎嶇不平的港島中部，並且擴展已有的大潭計劃，實在所費不菲。結果，政府在權衡成本開支後，決定在香港仔之上興建港島第四個水塘。項目於1929年5月獲得批准，隨即於11月動工。

政府決定興建容量達2.7億加侖(123萬立方米)的水塘，紓解了港島居民所面對的困境之餘，亦讓鴨脷洲等偏遠地區的居民首次獲得公共食水供應。

香港仔水塘由上水塘及下水塘組成。較大的香港仔上水塘於1931年12月落成，儲水量達1.8億加侖(82萬立方米)，並由當時的港督貝璐爵士(Sir William Peel)主持正式啟用儀式。較小的香港仔下水塘原先於1890年由私人興建，為大成紙廠所擁有，其後由政府接管及重建，作為香港仔水塘計劃的一部分，儲水量增至0.9億加侖(41萬立方米)，並於1932年重新啟用。來自上、下水塘的存水，用喉管經香島道及域多利道，穿過大口環輸送到設於西區(當時稱為Elliot)的沙濾池及快速重力沙濾池。

香港仔水塘的啟用，標誌著港島儲水設施的發展，最終告一段落。

THE Aberdeen Valley Water Scheme was prompted by a need to improve the reliability of water supply to the western areas of Hong Kong Island which continued to rely primarily on the supply of water from the Pok Fu Lam Reservoir. Although a supply from the Tai Tam group of reservoirs was available, the existing 10-inch diameter (254 millimetres) water pipes were inadequate in terms of meeting the volume of water demand in the area. The Government faced two options: the costly installation of new pipelines to improve the water transfer system or the development of a new reservoir. The choice came down to costs. Laying new pipelines across Hong Kong Island's rugged interiors and extending elements of the existing Tai Tam Scheme were just too costly. Instead, the Government decided to build the island's fourth reservoir – this time above Aberdeen. The project was approved in May 1929 and construction began in November.

The decision to build a 270-million-gallon reservoir (1.23 million cubic metres) brought relief to the people living on Hong Kong Island and, for the first time, residents living in outlying areas such as Ap Lei Chau had access to fresh public water.

Aberdeen Reservoir is made up of an upper reservoir and a lower reservoir. The larger Aberdeen Upper Reservoir with a capacity of 180 million gallons (0.82 million cubic metres) of water was completed in December 1931 and formally opened by the then Governor, Sir William Peel. The smaller Aberdeen Lower Reservoir was originally developed privately in 1890 and owned by the Tai Shing Paper Mill. This reservoir was taken over by the Government and reconstructed as part of the Aberdeen Reservoir Scheme to an increased capacity of 90 million gallons (0.41 million cubic metres). It was re-opened in 1932. Water was piped from both reservoirs along a route that included Island Road and Victoria Road and across Sandy Bay to filter ponds and a rapid gravity filtration plant in the Western District known then as the Elliot.

The inauguration of the Aberdeen Reservoir represents the completion of water storage development on Hong Kong Island.

38

香港仔上水塘拱橋

Aberdeen Upper Reservoir Bridge 1931

39

香港仔上水塘水壩
Aberdeen Upper Reservoir Dam 1931

40

香港仔上水塘水掣房

Aberdeen Upper Reservoir Valve House 1931

41

香港仔下水塘水壩
Aberdeen Lower Reservoir Dam 1932

結語：持續發展 實現未來

水務署現時負責管理香港龐大的水資源，確保700萬人口能夠獲得可靠潔淨的食水供應。每日超過260萬立方米的食水經由長達6 000多公里的供水管道，輸送至全港各區的家庭和商業樓宇。此外，商業及住宅樓宇亦每日耗用74萬立方米海水作為沖廁水。然而，即使香港擁有歷史悠久的集水區和水塘，也無法再依賴季節性雨水來滿足本地需求。相反，香港七至八成的食水是從毗鄰的廣東省輸入。這些食水經由水管輸送至香港，與本地收集的雨水一起儲存在水塘，以供處理及配送至港九新界各區。

香港於戰後不斷蓬勃發展，由原先的製造業中心，至今發展成為金融及服務業中心，食水於過往及現在一直都是本港賴以蓬勃發展的關鍵元素。19世紀和20世紀經常出現食水短缺的日子，如今已成為香港人遙遠的記憶。政府與廣東有關當局成功簽署一系列供水協議，令香港有信心獲得既有效又源源不絕的供水。

與世界各地的市政府一樣，香港深明人口增長及氣候變化帶來前所未有的新挑戰。當前的任務是關注「未來水資源的可持續發展」。本署一直積極監察供求情況，著眼於本地需要之餘，亦放眼於區域需求。水務署繼續研究、探討及尋求其他食水來源在本港的應用，包括海水化淡、循環再用及回收利用。我們相信，這些範疇日後勢必發展出更新的技術。各類公眾教育宣傳活動紛紛提倡節約用水，強調節約用水的習慣及有效益的用水設備。久而久之，市民大眾日益關注水的內在價值，明白有必要保護及節約現有資源，為可持續發展共同努力。

基於以上種種，水務署定必繼續盡心盡力管理香港的水資源，確保我們的後代，能夠享用前人過去一個半世紀在充滿挑戰的環境下，悉心培育及發展的資源。

Epilogue: Aiming for Future Sustainability

TODAY the Water Supplies Department manages Hong Kong's vast water resources, ensuring that the population of 7 million enjoys a reliable supply of clean and fresh water. Each day more than 2.6 million cubic metres of fresh water is piped along some 6 000 kilometres of water mains into the city's homes and office buildings. In addition another 0.74 million cubic metres of sea water is used in commercial and residential buildings as flushing water. However, even with its legacy of water gathering catchments and reservoirs in place, the city can no longer rely upon seasonal rainwater to meet domestic demand. Instead between 70 and 80 per cent of Hong Kong's water is imported from neighbouring Guangdong province. This supply is piped to Hong Kong, stored in impounding reservoirs along with local rainwater, ready for treatment and distribution.

Water has been, and remains, a key element in the city's dramatic growth after the War – first as a centre of manufacturing and more recently as a centre of finance and service industries. The days of water shortage that marked the 19th and much of the 20th century Hong Kong are now just distant memories. The Government's success in negotiating a series of water supply agreements with the Guangdong authorities has secured for the city a level of confidence that it will enjoy efficient and uninterrupted supplies.

Hong Kong, like municipal authorities worldwide, has recognised and accepted that population growth and climate change raise new challenges. The focus is now on the development of a 'sustainable water future'. Supply and demand is managed proactively and with an overview that takes into account not just local requirements and but also regional needs. The Department continues to research, study and test alternative sources of water including desalination, recycling and reclamation, and is confident that the future will embrace new technologies in these areas. Water conservation is promoted through public education campaigns which highlight water saving practices and water efficient appliances and devices. There is a growing awareness of the intrinsic value of water and the need to protect and conserve current sources as well as working towards sustainability.

It is against this background, the Water Supplies Department continues to manage Hong Kong's water resources in a manner that aims to ensure future generations will enjoy a resource that has been carefully cultivated and developed in often challenging conditions over the past one-and-a-half centuries.

圖片說明

保育香港供水系統的早期設施，有助市民大眾瞭解歷史。大部分列為歷史古蹟的水務設施，分佈於香港多個公眾喜愛的郊野公園內。從港島東面擁有四個水塘的大潭郊野公園，以至九龍西北面的城門郊野公園，行山徑在草木叢中蜿蜒而過，貫穿水塘和水壩。附近的抽水站、水掣房及其他設施，與迷人的海景、山色和城市景觀互相輝映。時至今日，大部分設施依然是香港食水供應不可或缺的一環。漫步於這些歷史古蹟之中，我們不期然會回憶起曾為香港公共供水系統出力的先驅，他們的遠見獨具慧眼，並且克服了一個又一個的挑戰。

水務設施用途說明

記錄儀器房	放置測量和監測水流量設備的建築物。
水掣房	一所興建在水壩上的建築物，以安放控制出水率和水流量閥門。
導流壩	大型水壩上的溢洪道的頂部叫導流壩。
水壩	水壩是一座橫跨峽谷或河谷的人工屏障，用以儲存食水。水壩大致可分為拱壩、扶壁式壩、土石壩和重力壩四大類。
量水站	量水站是用作測量水塘的出水。

Extended Captions

THE preservation of the early elements of Hong Kong's water supply system enables members of the public to access history. Most of the water supply facilities that have been classified as historic monuments are today contained within Hong Kong's popular country parks. From Tai Tam Country Park with its four reservoirs on the eastern corner of Hong Kong Island to Shing Mun Country Park in the north west of Kowloon, hiking trails wind through grasslands and woodlands, pass reservoirs and cross dams. Nearby, pumping stations, valve houses and other facilities that were and, in most cases, remain integral to the delivery of fresh water to the city can be seen alongside stunning vistas of sea, mountains and cityscape. Walking tours of these historic monuments are a reminder of both the extraordinary vision and the physical challenges faced by those early pioneers of Hong Kong's public fresh water supply system.

Functions of Waterworks Installations

Recorder House	A structure to house flow measuring and monitoring equipment.
Valve House	A structure constructing on a dam, which houses valves for controlling draw-off and flow rates through a dam.
Weir	The crest of an overflow spillway on a large dam is called a weir.
Dam	A dam is an artificial barrier that spans across a gorge or a valley and serves the purpose of retaining water. There are broadly four types of dam: arch dam, buttress dam, embankment dam and gravity dam.
Gauge Basin	A gauge basin is used to measure draw-off from a reservoir.

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薄扶林水塘前看守員房舍　1860 - 1863
這幢前看守員房舍是白漆牆壁的單層建築物，設計深受新古典建築風格影響。房舍築有三角形山牆、以傳統中式瓦片鋪成的斜尖屋頂，以及由天然紋理的花崗石柱構成的長廊。這幢房舍最初駐有看守員，守衛水塘及珍貴的水源，如今已命名為薄扶林管理中心，作為薄扶林郊野公園及水務署運作部門員工的辦事處。

Pok Fu Lam Reservoir Former Watchman's Cottage 1860 – 1863
This former watchman's cottage is a single-storey, white–walled building heavily influenced by the Neo-Classical style of architecture. It features triangular pediments, a pitched roof of traditional Chinese tiles and a veranda with natural finished granite columns. Originally a base for watchmen charged with securing the reservoir and its supply of precious water, the cottage today is known as the Pok Fu Lam Management Centre and used as offices of Pok Fu Lam Country Park and for the Water Supplies Department's operational staff.

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薄扶林水塘量水站　1863
量水站用作監測從水塘流出的水量。量水站為一長形坑槽，牆壁以層列花崗石鋪築而成，一端呈半圓形，而另一端則為隧道進水口，設有石面粗琢拱楔，令人聯想起意大利文藝復興時期的作品。熱衷於歷史建築研究的人士認為，此為量水站最顯著的特色。

Pok Fu Lam Reservoir Gauge Basin 1863
The gauge basin monitors the flow out of the reservoir. It is an elongated pit with coursed granite walls. A semi-circular shape at one end, its opposite end forms a tunnel inlet with rock-faced rusticated voussoirs, reminiscent of Italianate Renaissance work. Enthusiasts regard this as an outstanding feature.

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薄扶林水塘石橋　1863 - 1871
四道石橋橫跨匯入水塘的支流，富有意大利文藝復興時期的風格。石橋以花崗石砌成，飾有雅緻的半圓拱或平圓拱。兩道石橋建有代表19世紀中期工藝的花崗石蓋頂。砌石均有整齊的削邊，而石面則為網狀或蟲迹狀。時至今日，這些石橋與其古老石塊與四周的花草樹木融為一體。

Pok Fu Lam Reservoir Masonry Bridges 1863 - 1871
The Italian Renaissance period is reflected in the four bridges that span streams feeding the reservoir. These bridges are built in granite and feature elegant semi-circular or segmental arches. As a sign of mid-19th century craftsmanship, bridges feature granite copings. The ends of the stones have been neatly finished with chamfered margins and reticulated or vermiculated surfaces. Today, the bridges, with their aged stone, blend serenely into the surrounding vegetation.

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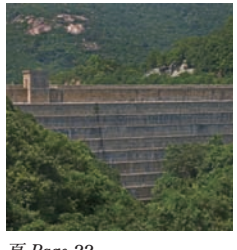

大潭上水塘水壩　1883 - 1888
高聳的花崗石牆及混凝土水壩圍擋水塘儲水，基座上的水壩高100呎(30.5米)、長400呎(121.9米)、寬60呎(18.3米)，當時是香港有史以來最大的水壩建築物。在重力作用之下，水塘儲水經由7 300呎(2.2公里)長貫穿山嶺的隧道及16 500呎(5公里)長的地面輸水道輸送至中環。該項目的各個主要部分都顯示規劃者的決心及建築工人的毅力。

Tai Tam Upper Reservoir Dam 1883 - 1888
The reservoir waters were contained by the towering walls of a granite and concrete dam, 100 feet high (30.5 metres), 400 feet long (121.9 metres) and 60 feet wide (18.3 metres) at its base - the largest dam structure ever built in Hong Kong at that time. From the reservoir, water gravitated through a 7 300 feet (2.2 kilometres) long tunnel through mountain and an aboveground 16 500 feet (5 kilometres) aqueduct to Central. All elements of the project demonstrate the determination of planners and the tenacity of construction workers.

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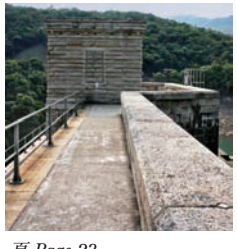

大潭上水塘水掣房　1883 - 1888
水掣房沿水壩頂部約三分之一位置興建，為一座簡單的方形構築物，只有一個門口，而小窗口現已封閉。水掣房以層列石面粗琢花崗石築成。原來的廡殿式屋頂已由平屋頂取代，突出的飛檐由雕飾托臂承托，依然原好無缺。

Tai Tam Upper Reservoir Valve House 1883 - 1888
The valve house for the dam is located at one third of the way along the top of the dam. A simple square structure with a single door and small window openings which have since been blocked, the valve house has been built in rock-faced rusticated granite blocks. The original hipped roof has been replaced with a flat roof with the projecting cornice, supported by carved ornamental corbels, remains intact.

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大潭上水塘石砌輸水道　1883 - 1888
輸水道位於水壩西南面的小山丘後，以厚混凝土板建成，並以特製模塑石墩及柱子承托。輸水道橫跨昔日的河床，把來自間接集水區的雨水引入大潭上水塘。

Tai Tam Upper Reservoir Masonry Aqueduct 1883 - 1888
Located to the southwest of the dam behind a small hill, the aqueduct is constructed in thick concrete slabs supported on specifically moulded masonry piers and columns. It sits across what was once a stream bed and diverts rainwater from an indirect drainage catchment to the Tai Tam Upper Reservoir.

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大潭上水塘石橋　1883 - 1888
作為水塘項目的一部分，石橋與輸水道成直角興建，橫跨昔日的大潭上水塘的溢洪道。石墩及柱子亦以模塑柱頂或托臂加固，為石橋提供更大的承托。

Tai Tam Upper Reservoir Masonry Bridge 1883 - 1888
Built as part of the reservoir project, this bridge sits at a right angle to the aqueduct, across what was once the byewash of the Tai Tam Upper Reservoir. Its piers and columns are also strengthened with moulded capitals or corbels to provide extra support for the bridge.

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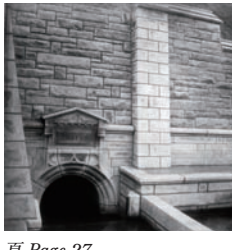

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大潭上水塘記錄儀器房 1917 及隧道進水口 1883 - 1888
紀念碑標誌著隧道的進水口，這條隧道穿越山嶺，將大潭的儲水經由灣仔的寶雲輸水道輸送至半山區，滿足港島中西區居民及商戶所需。隧道進水口位於水壩南面，外裝有鐵柵，其上建有狹窄的行人道連防護欄。這條隧道展現了大潭計劃的雄心及當時採用的先進工程技術。三十年後，當局在隧道進水口上加建小型記錄儀器房監察水流，牆壁以層列花崗石築成。

Tai Tam Upper Reservoir Recorder House 1917 and Tunnel Inlet 1883 - 1888
A commemorative stone marks the inlet to the tunnel that carries stored water from Tai Tam through the Bowen Aqueduct which runs above Wan Chai and on to Mid-Levels meeting the needs of residents and businesses alike in the Central and Western districts of Hong Kong Island. The tunnel inlet, covered in iron grating, is located at the south of the dam. Access catwalks with guard rails have been built above it. The tunnel illustrates the ambition of the Tai Tam programme and the advanced engineering skills applied at that time. About three decades later, a small recorder house with coursed granite walls was built across the tunnel inlet to monitor water flows.

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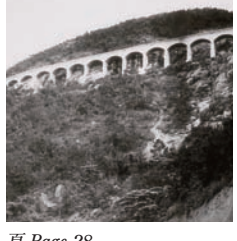

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寶雲輸水道　1885 - 1887
克服在山嶺修築隧道的挑戰後，工程師再次面對另一項重任，就是將儲水輸送至中環亞賓尼谷中的濾水池及儲水庫。隨著沿灣仔群山興建的寶雲輸水道，這項任務得以圓滿解決。這條石砌輸水道有部分地方以拱形結構承托。其中一段的承托是以21個相連的花崗石拱券構成，由石塊以砌合磚方式鋪砌，並以石碎屑塞進水泥沙漿內。

The Bowen Aqueduct 1885 - 1887
After the challenge of the mountain tunnel, engineers faced the task of conveying the water to filter ponds and a storage reservoir in the Albany Valley above Central. This was resolved by construction of the Bowen Aqueduct which would carry the water following the contours of the hills above Wan Chai. The masonry aqueduct, in some sections, is supported by arches. One section is supported by 21 consecutive arches, constructed in granite voussoirs. Each stone was laid in stretcher bond and chippings were wedged into the cement grout.

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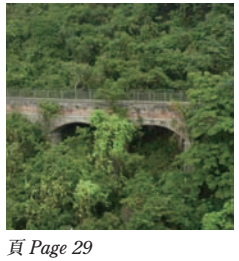

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寶雲輸水道　1885 - 1887
時至今日，承托現時寶雲道的這條輸水道幾乎埋藏在熱帶植物內，但仍是維多利亞式土木工程頂峰時期的非凡之作，是美學與工程需要的結合。

The Bowen Aqueduct 1885 - 1887
Today, the aqueduct supporting what is now the Bowen Road, is almost submerged in tropical vegetation. It remains, however, a great example of Victorian civil engineering at its best, integrating engineering needs with a sense of aesthetics.

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大潭副水塘水壩　1904
水壩為一混凝土重力建築，以砌石鋪面，沿水壩大部分地方均建有溢洪道。水壩兩側築有以層列毛石砌成的翼牆鞏固堤壩，另設上落踏板通往水位測量計。

Tai Tam Byewash Reservoir Dam 1904
The dam is a concrete gravity construction faced with masonry. An overflow or spillway runs almost the entire length of the dam which is strengthened at either end by wing walls of coursed rubble. Access steps lead to a water level gauge.

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大潭副水塘水掣房　1904
小型水掣房位於副水壩的中間，設計呈長方形，築有以花崗石飾面的牆、平頂及有小窗戶。行人道沿著水壩而建，方便日常檢查，時至今日則讓遠足者觀賞大潭郊野公園的特色。原來的鑄鐵安全欄杆仍然保持原貌。

Tai Tam Byewash Reservoir Valve House 1904
A small valve house, located halfway along the subsidiary dam, is rectangular in shape and features rock-faced granite walls, a flat roof and windows. Access walkways along the dam allowed regular inspections and are used today by hikers following trails in Tai Tam Country Park. Original cast iron safety railings remain in place.

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大潭中水塘水壩　1904 - 1907
圍繞大潭整個系統的水壩，均同屬一系。大潭中水塘的水壩以石鋪面，建有一個靜水池，側牆以混凝土建成，並設有管狀鋼製防護欄。基於安全理由，原建築物完工70年後，水壩溢洪道的全段降低了3米，造成現時壩頂輕微內凹的外貌。

Tai Tam Intermediate Reservoir Dam 1904 - 1907
Dams along the Tai Tam system follow a generic form. The masonry faced dam at Tai Tam Intermediate Reservoir has a stilling pond with concrete side walls and tubular steel guard rails. Seventy years after the original structure was completed, the whole section of the dam's spillway was lowered by 3 metres for safety reasons. This has left the dam looking slightly indented at its crest.

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大潭中水塘水掣房　1904 - 1907
水掣房建於突出的平台上，可經行人天橋到達。基座由數層磨光琢石築成，牆壁則以層列石面粗琢花崗石建造。建築特色包括門窗上的半圓形拱形頂蓋。在水掣房其中一角建有長方形鑄鐵雨水管，連同裝飾去水斗。

Tai Tam Intermediate Reservoir Valve House 1904 - 1907
The valve house is built on a projecting platform, and could be reached by a footbridge. The plinth consists of several courses of dressed ashlar and the walls are constructed of rock-faced rusticated granite blocks built to courses. Features include semi-circular arched heads over door and windows. A rectangular cast iron rainwater pipe, complete with ornamental hopper head, can be seen at one corner of the valve house.

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大潭篤水塘水壩　1912 - 1917
石面混凝土重力壩築有裝飾護牆及應付溢流的12條大型溢洪道。水壩兩端的溢洪道未經改動，其餘10條溢洪道則已加建混凝土建築物，改為虹吸溢洪道。溢洪道之上築有由半圓形花崗石柱支撐的12個拱券，以承托連接赤柱及大潭與柴灣及石澳的繁忙道路。

Tai Tam Tuk Reservoir Dam 1912 - 1917
The masonry-faced concrete gravity dam features ornamental parapets and 12 large spillways to handle water overflow. Spillways at either end of the dam are the original spillways while the other 10 have been modified with additional concrete structures to act as siphon spillways. Over the spillways are a road deck formed by 12 arches supported by half-round granite columns where busy road runs along connecting Stanley and Tai Tam with Chai Wan and Shek O.

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大潭篤水塘水掣房　1917
水掣房位於大潭篤水塘水壩近南端位置，建於突出的平台上，前面設有鋼製懸臂式露台或狹窄的行人道。水掣房屬長方形設計，牆壁以石面粗琢花崗石興建，平頂，護牆飾有突出的模塑飛檐，整幢建築物四面均有蓋頂。門窗建有半圓形拱飾及平檻，而面向道路的窗口經已封閉。

Tai Tam Tuk Reservoir Valve House 1917
The valve house is situated near the south end of the Tai Tam Tuk Reservoir dam. The valve house was built on a projecting platform which has cantilevered steel balconies or catwalks fixed to the front of it. The valve house was built to a rectangular plan with walls of rock-faced rusticated granite. The roof is flat and the parapet has a moulded projecting cornice and coping all round the building. Window and door openings have semi-circular arches and flush cills. The windows on the side facing the road have been blocked up.

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大潭篤水塘紀念碑　1918
紀念碑豎立於近壩頂南端的位置，刻有大潭水塘計劃於1918年落成，啟用儀式由當時的港督梅含理爵士(Sir Henry May, 1912 – 1918)主持。

Tai Tam Tuk Reservoir Memorial Stone 1918
A commemorative stone is erected near the southern end at the top of the dam to mark the completion of the Tai Tam Reservoir Scheme in 1918. Sir Henry May, Governor of Hong Kong from 1912 to 1918, officiated at the ceremony.

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大潭篤水塘石橋　1907
沿大潭篤水塘西岸興建的四座石橋穿越多個大型河床。每座石橋均屬花崗石拱形結構，並以多條頂部修窄的巨柱承托。其中兩座石橋特別高，巨柱與拱券間設有花崗石拱端托。沿橋頂飾有飛檐， 護牆上有粗啄石或磨光石作蓋頂。各座石橋不但時刻確保前往水塘群的通道暢通，亦是整個大潭郊野公園的部分通道。

Tai Tam Tuk Reservoir Masonry Bridges 1907
Four masonry bridges were built along Tai Tam Tuk Reservoir 's western shore across significant stream beds. Each bridge boasts granite arch structures with huge columns that converge at the top end. Two of the bridges in particular are quite high and feature granite imposts, inserted between columns and arches. The top of the bridges are lined with decorative cornices. The parapets are lined with rusticated or dressed granite copings. The bridges continuing to ensure accessibility to the reservoir system are also integral to Tai Tam Country Park's walkways.

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大潭篤原水抽水站　1907
抽水站的作用是將港島最南端集水區的食水，泵送到位於半山的輸水隧道進水口。當中的機器房是具歷史價值的罕有工業建築物。這座倉庫式建築物以紅磚為牆，鋪有中式瓦片的屋頂將機器房覆蓋在內，機器房運作最初的數十年仍裝有蒸汽推動的抽水機，每日可輸送300萬加侖 (1.4萬立方米) 食水。

Tai Tam Tuk Raw Water Pumping Station 1907
The station's role was to pump water from this southern most part of Hong Kong Island's catchment to the tunnel inlet located at the middle of the hill. Its engine hall is a rare piece of historic industrial architecture. The warehouse styled building, red brick walls and Chinese tiled pitched roofs encase the engine house which, over the decades, has contained steam driven pumps capable of transferring 3 million gallons (14 000 cubic metres) of water per day.

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大潭篤原水抽水站機器房　1907
當局多年來數度加建附屬建築物擴建機器房，包括鍋爐房及在機器房東端設有一個地下防空洞。建築特色包括建築物的牆角磚、半圓形拱飾以及窗口、三角形山牆、柱頂和小圓窗。

Tai Tam Tuk Raw Water Pumping Station Engine Hall 1907
Several annexes added over the years have extended the engine hall to include a boiler room and an underground air raid shelter, found at the eastern end of the building. Architectural features include brick quoins at the corners of the building, semi-circular arches and keystones to windows, pediments, column capitals and bull's eye windows.

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大潭篤原水抽水站煙囪　1907
原水抽水站的煙囪依然保持原貌。煙囪為方形設計，以紅磚砌成，經排煙道連接至機器房，以排走蒸汽鍋爐因燃煤而產生的煙。假如將機器房歸入喬治復興時代的建築，則煙囪可歸入實用主義一類。

Tai Tam Tuk Raw Water Pumping Station Chimney Shaft 1907
The chimney shaft for the original pumping station remains in place today. A flue carried smoke generated by coal burning steam boilers through the engine hall to the chimney that is square in plan and constructed in red brick. Whilst the engine hall is classified as Georgian Revival, the chimney shaft falls into the Utilitarian category.

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大潭篤原水抽水站高級員工宿舍　1905
當大潭水塘群的主要部分於1905年開始全面投入服務時，多支員工隊伍負責水塘、水壩、水管及隧道的運作及維修工作。這座1905年的房舍原先為水務經理而設，是一座素色的兩層建築物，建在抽水站機器房東面盡頭突出的平台上。現時，此建築物由政府產業署管理。

Tai Tam Tuk Raw Water Pumping Station Senior Staff Quarters 1905
By the time the principle elements of the Tai Tam system were fully operational in 1905, teams of crews were involved in the operation and maintenance of the reservoirs, dams, aqueducts and tunnels. The house, originally built for the manager of the waterworks system in 1905, is a plain two-storey building constructed atop a raised platform at the eastern end of the pumping station's engine hall. The premises are being tenanted under the management of Government Property Agency.

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大潭篤原水抽水站員工宿舍　1905 - 1907
為運作及維修員工興建的宿舍於1907年在機器房西面盡頭建成。這座相信原為紅磚牆的狹長建築物，現已塗成米黃色，斜尖屋頂蓋有中式瓦片。窗戶為木製窗戶，頂部成平圓拱形，長長的走廊可以觀賞大潭灣一帶的景色，在炎炎夏日，有清涼的海風送爽，實在是額外的享受。目前，此建築物仍供水務署運作上使用。

Tai Tam Tuk Raw Water Pumping Station
Staff Quarters 1905 - 1907
In 1907, accommodation for operational and maintenance staff was completed at the western end of the Engine Hall. What is believed to be the original red brick walls of the long narrow building have been painted light yellow and the roof is pitched and covered in Chinese tiles. The windows are wooden casements with segmental arched heads and long verandas offer the additional advantages of views across Tai Tam Bay and cooling sea breezes during hot summers. The building is still being employed by Water Supplies Department for operational use.

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大潭篤原水抽水站二號員工宿舍　1936
較小的獨立兩層樓房，建於1936年，建築風格歸類為工藝美術。可欣賞海景的長廊是這座建築物的特色。

Tai Tam Tuk Raw Water Pumping Station
No. 2 Staff Quarters 1936
A smaller detached two-storey block, completed in 1936, has been built in the 'Arts and Crafts' style of architecture. This building also features verandas looking out to the sea and is pending for revitalisation.

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黃泥涌水塘水壩　1899
黃泥涌水塘水壩建於水塘西北角落的小谷地，呈回力鏢狀。與該年代興建的其他水壩一樣，黃泥涌水壩是以花崗石鋪成，頂部設有出入通道。

Wong Nai Chung Reservoir Dam 1899
The reservoir's boomerang-shaped dam is built in the northwest corner across a small valley. Like other dams of its era, it has been constructed using large granite blocks with an access walkway across the top of the dam.

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黃泥涌水塘水掣房　1899
水掣房位於水壩頂的中間，是一個以粗琢石塊築成的小型方形建築物，門窗四周以磨光琢石圍繞。原來的廡殿式屋頂已換成混凝土平屋頂。入口上方的一條門楣上刻有「1899」字樣，即水塘的建成年份。

Wong Nai Chung Reservoir Valve House 1899
A small square structure of rusticated masonry with dressed ashlar stones around door and window openings, the valve house is located half way along the top of the dam. The original hipped roof of the valve house has been replaced with a flat concrete roof. The year of construction, 1899, is inscribed on a lintel above the entrance.

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黃泥涌水塘導流壩　1899
導流壩是水壩的一部分，將滿溢的存水引流至一條彎曲的梯級形引水道，再與水壩下游的天然水道匯合。

Wong Nai Chung Reservoir Weir 1899
A weir, built into the dam, diverts excess water to a stepped and curved channel where it joins a natural water course downstream of the dam.

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九龍水塘主壩　1901 - 1910
九龍水塘主壩位於九龍水塘與下游的九龍副水塘之間。主壩以混凝土重力方式建成，壩面呈弧形，以砌石鋪面。壩頂築有通行道路，上游的一面築有護牆，而下游的一面則設有鋼製欄杆。

Kowloon Reservoir Main Dam 1901-1910
The main dam is situated between Kowloon Reservoir and the downstream Kowloon Byewash Reservoir. The dam, with its curved wall, is of concrete gravity construction faced with masonry. A service road runs along the top of the dam and is protected by a parapet wall on the upstream side and steel railing on the downstream side.

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九龍水塘主壩水掣房　1901 - 1910
主壩水掣房呈方形，由水壩上游表面伸延出來。水掣房的牆壁以粗琢花崗石塊建成，其上蓋有金字塔形的矮屋頂。水掣房底下有一個豎井，內有閥門，以控制從水壩的取水和水流量。

Kowloon Reservoir Main Dam Valve House 1901-1910
The valve house on the main dam is a square-shaped building projecting out over the upstream face of the dam. Its rusticated granite block walls are covered with a low pyramid-shaped roof. Beneath the house is a shaft with valves that control the draw-off and flow rates of water passing through the dam.

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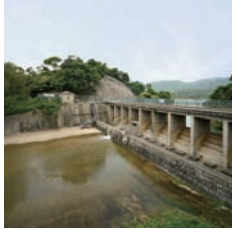

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九龍水塘溢洪壩　1901 - 1910
有別於主壩的彎曲形狀，位於主壩東南面的溢洪壩是一條直壩。溢洪壩是一座混凝土重力導流壩，以砌石鋪面，壩頂的橋面，由9座花崗石墩承托。從導流壩排出來的水，經梯級形的壩面，流到下游的靜水池。水其後會流經另一座三角形槽口導流壩進入九龍副水塘。

Kowloon Reservoir Spillway Dam 1901-1910
Unlike the curved shaped of the main dam, the spillway dam is a straight-walled structure located southeast of the main dam. It has a concrete gravity weir, faced with masonry, and carries a road bridge supported by 9 granite piers. The weir discharges water over its stepped downstream face to a stilling basin below. From there, the water passes through a second, vee-notch weir and into the Kowloon Byewash Reservoir.

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九龍水塘溢洪壩記錄儀器房　1901 - 1910
用於測量水塘水文數據的記錄儀器房，坐落於溢洪壩西端的樹叢中，其設計與主壩水掣房相似。記錄儀器房採用經濟相宜的材料建造，蓋有金字塔形的屋頂，牆壁則以粗琢花崗石塊砌成。

Kowloon Reservoir Spillway Dam Recorder House 1901-1910
The recorder house for gauging hydrological data of the reservoir sits snugly among trees at the western end of the spillway dam and is similar in design to the valve house on the main dam. Low and economical in terms of materials used in its construction, the house has a pyramid-shaped roof and walls of rusticated granite blocks.

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九龍水塘記錄儀器房　1901 - 1910
這座小型記錄儀器房位於水塘東面的筆架山引水道旁。與溢洪壩西端的記錄儀器房一樣，這座平實的方形建築物亦是以粗琢花崗石塊建造，頂部為混凝土平屋頂，裝有一道鋼門、鋼框窗、防盜鐵枝和通風口。

Kowloon Reservoir Recorder House　1901-1910
This small recorder house is located by the side of the Beacon Hill catchwater at the east of the reservoir. Being an unassuming square building constructed in the same rusticated granite blocks as its neighbour, it has a flat concrete roof and is fitted with a steel door, steel framed windows, guard bars and ventilators.

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城門水塘紀念碑　1937
位於主壩西南端路旁的紀念碑，以花崗石板建造，上面刻有水塘的建造年份，即1937年，以及堤壩設計師和工程師的名字，還有關於水塘容量的詳細資料。

Shing Mun Reservoir Memorial Stone 1937
A granite slab memorial stone, built into the side of the road at the south-western end of the dam contains an inscription recording the year of construction - 1937 - and the names of the dam's designers and engineers as well as details of the reservoir's capacity.

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香港仔上水塘拱橋　1931
這道拱橋承載著香港仔上水塘的出水管，以鋼筋混凝土建成，由帶有模仿石製接口的混凝土墩升起。暗渠入口由預製混凝土塊建成，頂部仿拱券狀，並裝設配有鋼門及裝飾圖案鐵閘。

Aberdeen Upper Reservoir Bridge 1931
This bridge, which carries the outflow pipes from Aberdeen Upper Reservoir, is constructed in reinforced concrete, raised off concrete piers marked to resemble masonry joints. The culvert entrance is built in reticulated precast concrete blocks and resembles a voussoired arch which is fitted with steel doors and ornamental ironwork.

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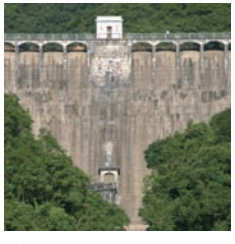

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香港仔上水塘水壩　1931
大壩是一座混凝土重力壩，長400呎(121.9米)、高138呎(42.1米)，成為阻擋1.8億加侖(82萬立方米)存水的屏障，壩面以預製混凝土塊鋪建。水壩上游的一面垂直，下游的一面則為斜面。平圓拱跨過中央的溢洪堰，沿著壩頂的一條道路則由護欄及混凝土支柱保護。

Aberdeen Upper Reservoir Dam 1931
The large dam is 400 feet long (121.9 metres), 138 feet high (42.1 metres) and stands as a barrier to 180 million gallons (0.82 million cubic metres) of water. It is a concrete gravity dam, faced with precast concrete blocks. The dam's upstream face is vertical. The downstream face has an inclined surface. Segmental arches span the central spillway and a road, protected by guard rails and concrete posts, runs along the top of the dam.

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香港仔上水塘水掣房　1931
水掣房位於水壩中間，建造在水壩面向水塘的牆上，並伸入水塘面。這座小巧方形建築物的牆壁以預製混凝土塊建成，蓋有平屋頂，並配備光滑的矮牆及模製外伸的飛檐。

Aberdeen Upper Reservoir Valve House　1931
Located in the middle of the dam, the valve house is built onto the rear wall and projects over the reservoir. The walls of the small, square structure are constructed of precast concrete blocks, its roof is flat with a plain parapet and moulded projecting cornice.

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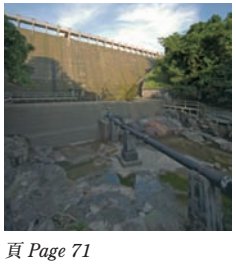

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香港仔下水塘水壩　1932
這座較小的水壩亦是一座混凝土重力壩，背面同樣是垂直的牆壁，而面向下游的牆壁則為斜面。水壩有一個圓頂溢洪堰，沿壩頂有一條行人橋。水壩為阻擋0.9億加侖(41萬立方米)存水的屏障。

Aberdeen Lower Reservoir Dam　1932
This smaller dam is also a concrete gravity dam with a similar vertical rear wall and inclined downstream wall. The dam has a rounded overspill and footbridge access across the top. It provides a barrier to 90 million gallons (0.41 million cubic metres) of water.

換算表

英制			公制	
1	吋	=	25.4	毫米
1	呎	=	304.8	毫米
1	碼	=	0.914	米
1	哩	=	1.609	公里
1	英畝	=	0.405	公頃
1	加侖	=	4.544	公升
1	百萬加侖	=	4,544	立方米
1	億加侖	=	0.454	百萬立方米

Conversion Table

Imperial			Metric	
1	inch	=	25.4	millimetres
1	foot	=	304.8	millimetres
1	yard	=	0.914	metres
1	mile	=	1.609	kilometres
1	acre	=	0.405	hectares
1	gallon	=	4.544	litres
1	million gallons	=	4,544	cubic metres
1	billion gallons	=	4.544	million cubic metres