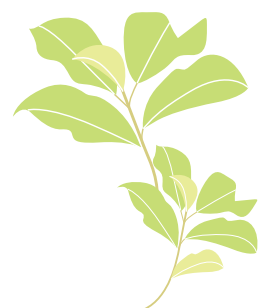


為高空添上綠色姿彩 Paving Hong Kong's Roofs in Green



匆匆一瞥，五育中學的天台花園繁花似錦，與一般的專業設計的天台花園無異，但仔細一看便不難發現每一個角落的設計都別具心思。隱藏在環保庭園葉子下的花盆，原來是用倒轉的膠椅和棄置的電腦顯示器所變身而成，而在旱生植物花園中央的噴泉池其實是來自實驗室的舊花盆。天台花園充分體現出五育中學學生的創意，並一直深受他們愛戴——不少畢業生每年都會舊地重遊，回味他們努力的成果，甚至在此拍攝婚紗照。

天台花園是一班修讀生物科學的學生和陳才源老師與實驗室技術員丁紹明先生共同努力下的心血結晶。五年前，天台只是凋落的一角，但經過學生們利用在學校找到的廢物材料，親手一磚一瓦拼砌出花園、花架和魚池，從零開始逐步建成今天的天台花園。每年，新的班別都會繼續薪火相傳，把學校的天台締造成一個美麗而生生不息的天台花園。這個創新的設計使五育中學的天台花園在發展局綠化、園境及樹木管理組主辦的「高空綠化大獎2012」中脫穎而出，榮獲銀獎。

有別於大部分商業化的天台花園，五育中學捨棄成本較高的草皮，給予學生一個親手解決問題的

機會，讓他們直接利用種子種出草地，並以扦插的方法培育出大部分植物。經過多番的嘗試和失敗，學生終於解決天台花園泥土稀薄，並長期受烈日暴曬及雨水淹浸的問題，讓植物在如此惡劣的生長條件下，仍能茁壯成長。他們還善用從港燈「清新能源基金」和「創新能源項目設計比賽」中獲得的獎金，以實驗性質在天台花園安裝了利用再生能源發電的風力渦輪機和太陽能光伏板的LED燈裝置。

天台花園為五育中學帶來了意想不到的收穫，是降低了課室的溫度，並減輕學校空調系統在炎夏的負荷。天台花園搖身一變成為魚兒、鳥龜和候鳥的家園。學生們還在樹枝縫間發現鳥巢，印證了生氣勃勃的微型生態系統正有效地運作，叫人雀躍萬分。陳老師亦正考慮建立觀鳥站，讓學生學習不同鳥類的遷徙模式。

在學校周邊生活的居民，都對學校的天台花園印象深刻，並讚不絕口，同時很感謝五育中學持續推廣環保活動，在香港的環保路上踏出了第一步，並為居住在石屎森林的居民增添了一份生活的色彩。不單是這樣，這類環保教育喚起了新一代對綠色生活的關注，讓他們視環保為必要的一環，帶領香港邁向實踐綠色生活的目標。✿

At a glance, the rooftop gardens of Ng Yuk Secondary School resemble many other professional rooftop gardens blossoming across the city, but a closer look will uncover delightful quirks around every corner. Hidden under the leaves of the Eco Garden are planters made of overturned plastic stools and empty computer monitors, while the fountain in the Xerophyte Garden is in fact made of old laboratory sinks. These details reveal the creativity and loving attention lavished by Ng Yuk students over the years – students who have returned year after year to revisit their hard work, to celebrate their graduation and even to take wedding photos.

The gardens are the work of the school's biology and science students, their teacher, Mr Chan Chai Yuen, and the laboratory technician, Mr Ting Siu Ming. Five years ago, the roof was no more than an empty canvas. Brick by brick, the students constructed flowerbeds, trellises and fishponds by hand, creating a garden from the ground up using whatever disused equipment

they could haul up from the school – materials that would otherwise have wound up in landfills. Every year, new classes added their own contributions, transforming the school's rooftops into beautiful and virtually self-sustaining gardens. These innovations have earned the Ng Yuk Secondary School rooftop gardens a silver medal in the Skyrise Greenery Awards 2012, presented by the Greening, Landscape and Tree Management Section of the Development Bureau.

Unlike most commercial rooftop gardens, Ng Yuk's lawns were planted with seeds rather than strips of turf to keep costs low, and the vast majority of its plants were nurtured from cuttings. This has provided students with invaluable opportunities for hands-on problem-solving. Years of trial and error were involved in ascertaining the plant configurations that would thrive under the harsh conditions on the rooftop, where the thin soil layer was alternately baked by the sun or flooded by the rain. The students also experimented with renewable energy sources to power the garden's LED lights, installing wind turbines and solar panels using grants received from the HK Electric Clean Energy Fund and the Energy Innovation Competition.

The rooftop gardens offer the added bonus of lowering the temperatures in the underlying classrooms by several degrees, relieving the pressure on the school's air conditioning system during the scorching days of summer. They have also become home to a variety of animals, including several generations of fish, two stray turtles and flocks of migratory birds, who like to stop by to drink from the pond and snack on the fish. Students were delighted to discover bird nests hidden deep within the bushes, evidence of a thriving mini-ecosystem at work. In fact, Mr Chan is contemplating a bird watching station that would enable students to study the migratory patterns of the various species that pass through.

Residents from the surrounding high-rise buildings have been quick to compliment the school on the pretty garden that has been added to their view. Thanks to progressive eco-education programmes like Ng Yuk's, patches such as these are beginning to appear all over Hong Kong, paving the aerial view in swathes of living colour. More than that however, these educational programmes foster a love of greening among the new generation, training young leaders to view it as a necessity rather than an option, and helping to fulfil the promise of a greener Hong Kong. ✿

都市快拍 SNAPSHOTS



中文名：假蘋婆（七姐果）
學名：Sterculia lanceolata
原產地：華南、東南亞
香港觀賞勝地：郊野地區

Common name: Lance-leaved Sterculia
Scientific name: Sterculia lanceolata
Origin: Southern China, Southeast Asia
Viewing in Hong Kong: Countryside



生長迅速的本土常綠喬木，在山坡上，尤其在山溝及溪邊十分常見。此樹種喜歡在陽光充沛但有適當遮蔽的環境裡與其他樹木一起生長。

It is a fast growing evergreen native tree species commonly found on hillside, particularly in ravines and stream banks. It prefers sunny sheltered positions in company with other trees.

果期初夏，果實由五枚放射狀萼莢組成，成熟時由青綠色漸變為黃色，最後在八至九月時轉為紅色，使其更奪目和吸引。當成熟時，果會裂開並露出四至五顆種子，是樹林內鳥類喜愛的食糧。

Fruiting in early Summer, starts as a radiating cluster of five follicles in green, gradually turning yellow and finally glowing red in August and September, making it very distinctive and attractive. The follicle will then split and exposing the 4-5 seeds which are favourite of many birds in the forests.

由於假蘋婆結果的期間與中國七姐誕相近，故又稱為七姐果。亦有人用蘋婆和假蘋婆的果實作為七姐誕的祭品。✿

Its fruits appear around the Weaver Maid Festival in China thus it is also named as the "Fruit of Weaver Maid" in Chinese, which is also used, together with the fruits of Sterculia nobilis as offerings at the Weaver Maid Festival. ✿

以綠為先 TAKING THE LEAD



陳才源老師（左1）、丁紹明老師（左2）和參與學校高空綠化的五育中學同學
Mr. Chan Chai Yuen (left), Mr. Ting Siu Ming (2nd from left) and the students of Ng Yuk Secondary School created the beautiful rooftop gardens.



如欲獲取更多關於高空綠化大獎2012的資料，請瀏覽
To find out more about the Skyrise Greenery Awards 2012, please visit

www.greening.gov.hk/en/people_tree_harmony/events_promotions.html

緬懷胡秀英教授 1910 - 2012

In Memory of Professor Shiu-Ying HU

2012年5月22日，國際著名植物學家胡秀英教授在香港息勞歸主，享年102歲。胡教授1933年畢業於南京金陵女子大學，1937年在廣州嶺南大學獲頒碩士學位。1946年獲獎學金到哈佛大學深造，專研中國冬青科植物，並於1949年取得博士學位。由於成績優異，獲聘任於哈佛大學安諾樹木園，從事植物分類、植物地理及植物資源利用等方面的研究。胡教授一生採集及鑑定的植物標本多達十八萬五千份，發表超過一百六十篇專題論文。胡教授可說是活的中國植物百科全書，特別是冬青科、菊科、蘭科、金針屬、泡桐屬等植物的權威學者。2008年獲美國植物學評議會頒授「終身成就獎」。

胡教授對香港植物的研究、應用、保育及人才培訓等方面亦都作出了巨大的貢獻。在1968年應邀到香港中文大學崇基學院生物系擔任高級講師，教授普通植物學、植物分類學及「本地植物」等學科和進行野外採集、考察等研究工作，並於1971年建立了中大植物標本館。在香港採

集及製成的植物標本共兩萬多份，當中不乏科學界的新發現，如南方帶唇蘭 *Tainia ruybarrettoi* (S.Y. Hu & Barretto) Averyanov。1970年代初亦促成了中大大中藥研究中心的建立，開拓中草藥研究，為中大於1998年設立中醫學院打下良好根基。多年來，胡教授積極推動香港及中國大陸的園藝、綠化、植物保育與環境保護工作，歷任香港花卉展覽大會顧問、香港園藝學會名譽顧問、長春社創辦人暨名譽顧問、南京中山植物園顧問、廣州華南農業大學榮譽教授、和深圳仙湖植物園顧問等。✿

On 22nd of May 2012, the internationally renowned botanist Professor Shiu-Ying Hu departed and rested in peace at 102 years of age. Professor Hu graduated from Jingling Women's University in Nanjing in 1933 and gained a master degree in Lingnan University, Guangzhou in 1937. In 1946, she was granted a scholarship to continue her study in Harvard University specialising in Chinese

1910	1933	1937	1946	1949	1968	1971	1970年代初	2008	2012
出生 Born	畢業於南京金陵女子大學 Graduated from Jingling Women's University, Nanjing	取得嶺南大學 碩士學位 Master degree, Lingnan University	獲獎學金到 哈佛大學深造 Granted a scholarship to study in Harvard University	取得哈佛大學 博士學位 Doctorate degree, Harvard University	出任香港中文大學崇基 學院生物系高級講師 Senior lecturer of Biology Department, Chung Chi College, CUHK	建立中文大學 植物標本館 Established a herbarium for CUHK	促成中文大學 中藥研究中心的建立 Contributed to the establishment of the Chinese Medicinal Material Research Centre for CUHK	獲美國植物學評議會 頒授「終身成就獎」 Awarded "Lifetime Achievement Award" by the American Botanical Council	逝世 享年102歲 Deceased 22 May 2012

Holly (*Ilex* spp.) and subsequently received her doctorate degree in 1949. Due to her outstanding academic achievements, she was appointed by Arnold Arboretum of Harvard University on plant taxonomy, plant geography and plant resources utilisation researches. Throughout her life time, Professor Hu has collected and identified over 185 000 sets of herbarium specimens and published over 160 research articles. Professor Hu is a living encyclopedia of Chinese plants, as well as the authority on Aquifoliaceae (Holly Family), Asteraceae (Daisy Family), orchids, lilies and *Paulownia*. Professor Hu was awarded the "Lifetime Achievement Award" by the American Botanical Council in 2008.

Professor Hu has made tremendous contribution in almost all aspects of plants in Hong Kong including research, utilisation, conservation and capacity building. In 1968, she was invited to serve as senior lecturer at Biology Department of Chung Chi College, the Chinese University of Hong Kong (CUHK) teaching general botany, plant taxonomy and local flora. She also

researched on the local flora by field investigation and making field collections and established a herbarium for the CUHK in 1971. Among the twenty thousand plant specimens Professor Hu collected in Hong Kong, some are new to science, such as the *Tainia ruybarrettoi* (S.Y. Hu & Barretto) Averyanov. In the early 1970s, Professor Hu also contributed to the establishment of The Chinese Medicinal Material Research Centre, which pioneered in the research of Chinese medicinal herbs and laid a robust foundation for setting up the School of Chinese Medicine of the CUHK in year 2000. Throughout these years, Professor Hu has actively promoted plant and environmental conservation, greening and gardening in Hong Kong and Mainland China by serving as advisor of the annual Hong Kong Flower Shows, the Institute of Horticulture (Hong Kong), the Conservancy Association (also a cofounder), the Nanjing Zhongshan Botanical Garden, Shenzhen Fairy Lake Botanical Garden and honorary professor of the Southern China Agricultural University (Guangzhou) and so forth. ✿



Professor Hu once wrote "... my life is much more enriched because I serve" in an article that she wrote to commemorate her alma mater, Jingling Women's University's 80th anniversary. Professor Hu also shared with four primary 6 students in 2006 about her motto: "When pursuing your goal, you should **Keep on! Keep on! Keep on! Never, Never, Never Give Up!** In the end, obstacles will be overcome and there will be success". Inspired by Professor Hu, we hope you would join us and contribute to tree conservation and greening endeavour in Hong Kong, surpassing any challenges and realising our vision of "People, Trees, Harmony."

胡教授在母校金陵女子大學80周年校慶紀念文章中指出：“我感到，我的生命因服務而更加豐盛”。胡教授於2006年與四位小學六年級的學生分享她做事的座右銘，就是「朝着正確目標 **堅持！堅持！堅持！永不、永不、永不放棄！**最終必能突破困難，達成功」。希望各位讀者在胡教授身體力行的感召下，一同為香港的綠化工作、樹木保育及管護而出一分力，實現「人樹共融、綠滿家園」的願景。

香港植物標本室

The Hong Kong Herbarium

香港植物標本室於1878年成立，時至今日已經有一百三十多年歷史，是現時香港最完善的一個植物標本室。由最初設於香港植物公園（即現時的香港動植物公園）內，經過多次搬遷，香港植物標本室現位於長沙灣政府合署，由漁農自然護理署管理。歷年來，香港植物標本室一直負責有系統地採集、鑑定和管理香港的植物標本，是研究植物分類、生態及保育的一個重要資料中心。

一所植物標本室和參考圖書館相類似，只是標本室所儲存的是經小心製作的植物標本，這些標本通常是經壓乾後，再小心地裝訂在無酸紙上，貼上有關的資料（包括植物學名，採集標本日期、地點及採集人姓名），並根據分類系統分別存放在儲藏櫃內。最重要的是植物品種是由經驗豐富的植物工作者所鑑定，因此這些植物標本能為植物鑑定工作提供真確對照參考，為變化多端的植物及科學研究提供永久的參考資料。

香港植物標本室成立之初，館藏植物標本只有2 000多份。經過眾多植物學家和採集人多年的努力，時至今日，標本室館藏的標本已達42 000多份，其中290多份更是模式標本（即是依據國際規定，用作發表新物種學名的植物標本），令香港植物標本室在區內具有重要地位。

香港植物標本室亦有出版物，提供植物學的資料，當中包括《香港植物名錄》及多款教育單張。近年標本室與中國科學院華南植物園合作編纂了《香港植物誌》，收錄了在香港有紀錄的原生、歸化及栽培植物共2 544種和變種，是首本以英文編寫並輔以豐富的繪圖及彩照的華南地區植物誌。此外，香港植物標本室亦透過網頁(www.hkherbarium.net)內的香港植物資料庫，為公眾提供超過3 000種香港植物的資料和超過6 000張圖片作參考。✿

The Hong Kong Herbarium has been established for more than 130 years since 1878 and is the most comprehensive herbarium in Hong Kong. It was located at the Hong Kong Botanic Gardens (now the Hong Kong Zoological and Botanical Gardens) when it was first established. After relocated to several places, the Herbarium is now housed at the Cheung Sha Wan Government Offices and managed by the Agriculture, Fisheries & Conservation Department. Ever since its establishment, the Herbarium is responsible for the systematic collection, identification and curation of plant specimens in Hong Kong. It plays a significant role in supporting the studies on the taxonomy, ecology and conservation of Hong Kong flora.

A herbarium is analogous to a reference library. However, its collections are dry-pressed plant specimens carefully mounted on acid free paper and labelled with information about the scientific names of the plants, when and where they were collected, and names of the field collectors. These plant specimens are maintained and arranged in cabinets in the sequences of an accessible system of classification. Most importantly, their botanical identities were determined by experienced personnel. These specimens serve as definitive references for plant identification. They also serve as important and permanent references for plant taxonomy and other related scientific studies.

The Hong Kong Herbarium began with about 2 000 specimens at the time of its establishment. By the efforts of numerous botanists and plant collectors over the years, specimens collected in the Herbarium have been built up to more than 42 000 with more than 290 type specimens (a herbarium specimen which was described and used for the designation of the scientific name of a new species, in accordance with international requirements). This makes the Herbarium regionally important.

The Hong Kong Herbarium also produces botanical publications.

These include *Checklist of the Hong Kong Plants* and several educational leaflets. Recently, the Herbarium has collaborated with the South China Botanical Garden of the Chinese Academy of Science in compiling the *Flora of Hong Kong*. It is a definitive technical reference aiming at recording all known native, naturalised and cultivated plant species in Hong Kong, and is the first flora book about plants of South China written in English and fully illustrated with botanical drawings and colour photographs. The Flora totally treated 2 544 species and varieties of plants. Moreover, the Herbarium has provided basic information of more than 3 000 plant species with over 6 000 photographic images in the "Hong Kong Plant Database" at its website (www.hkherbarium.net). ✿

www.hkherbarium.net



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Greening, Landscape and Tree Management Section, Development Bureau

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