



校園發展計劃六大規劃原則 Six Pillars of the CMP

經過逾四十場的持份者交流活動，廣納各方意見而制定的校園發展計劃已獲大學校董會支持。為達到平衡保育和發展的願景，校園發展計劃確立了六大規劃原則，並獲大學成員廣泛支持。

The Campus Master Plan (CMP), now officially endorsed by the University Council, has drawn up a comprehensive framework for campus development, based on feedback received from over 40 stakeholders engagement activities. Propping up this framework are six guiding precepts which give practical interpretation to the CMP vision of a sustainable campus enjoying balance between development and conservation. These precepts have received the widespread support of University members.

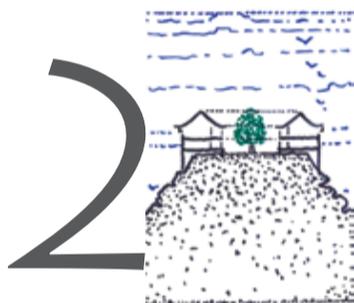


1 規劃教學及研究設施

校園發展計劃建議以分區發展的概念來組織教學、研究、行政和文娛活動，以善用資源及方便往還，例如教學活動將集中於中央校園及大學站一帶，研究樞紐則移至稍遠的區域。此外，也會加強教學區域間的往還聯繫。

Planning Places for Education and Research

The campus to be zoned into spaces for teaching, research, administration and recreation, to enable better use of resources and convenience of access. For example, teaching facilities to cluster around Central Campus and University Station, and research activities to take place in slightly more remote locations. Connection between academic facilities to be strengthened.



2 提升書院文化

通過增設文娛及學習設施，凝聚成社交中心，繼而發展為獨特的書院鄰里區。行人網絡亦將改善。

Enhancing College Life

Distinct college neighbourhoods to be formed through the provision of new recreational and learning facilities for common use, among other things. Pedestrian connections to be enhanced.

倡導健步文化

校園發展計劃的其中一項規劃重點，是不但方便大家步行往來校園，也讓步行更有樂趣。發展計劃建議奉行步行優先的原則，輔以單車徑，以減少車輛往來和對校巴的依賴。為此，將開闢新步行路線和增設快速升降機，以擴展行人網絡及聯繫，並提升步行安全。另外，發展計劃亦提出於校園增闢單車徑。

Promoting a Pedestrian Friendly Campus

A key aim of the CMP is to make the campus convenient and enjoyable to walk through. By prioritizing walking, with some cycling, it is hoped that driving and dependence on shuttle buses will be reduced. The CMP recommends extending the pedestrian network by installing new routes and express lifts, improving existing pedestrian links for safety and security, and constructing a cycling track on campus.



保存具價值的地標

校園發展計劃列出了校園具代表性、建築設計獨特或具歷史價值的建築和地點，讓大學據之予以保育，並提出選定和保存這些饒富價值的地標的方法。

Conserving Places of Value

The CMP has compiled a list of structures and places on campus which contribute to the University's image and identity, or which have special architectural or historical value, and therefore should be conserved. It also recommends formulating a methodology for identifying places with conservation value.

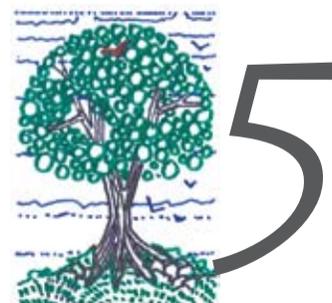


優化校園景色

除致力保育校園的鳥獸、水源及植物外，更會加強綠化工作，如在眺海或靠近茂密林木之處開闢露天廣場、綠化天台、增建有蓋庭院連接建築物和小徑，以及採用不同的主題園藝。

Creating a Landscape of Vital Importance

Besides conserving the campus's fauna, water streams and trails, the green experience will be enhanced through the creation of open spaces around areas commanding views of the sea or wooded hills, the building of attractive planted roofs, shaded courtyards between buildings, new footpaths, and the adoption of thematic landscaping.



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建構可持續校園

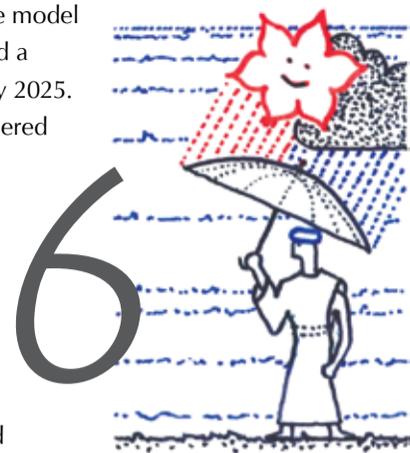
發展計劃建議了一些切實可行的指引，讓我們據之以可持續的概念來締建校園，目標是在2025年把人均能源消耗減少百分之二十五，人均溫室氣體排放減少百分之二十。計劃也制訂了一些環保措施和原則，供各建築項目參照進行，包括使用太陽能、安裝遮陽設施、利用自然通風、綠化天台、使用環保建築物料及實行低碳政策。

計劃提出了一個重要建議，就是建造四通八達的人行網絡，讓行人可以舒適便捷地往來校園各處，並在校園推行行人優先原則，藉以減少對汽車的依賴、改善空氣質素和減少噪音，有助環保。另一項建議是進行可行性研究，評估能否在校園內以另類方式集中生產能源，並實行減排措施，包括使用太陽能吸收式製冷機，利用海水或湖水作自然冷卻，風力發電，以太陽能集熱器供應熱水，採用光伏板發電。

Building a Sustainable Campus

Guidelines to be set up to develop a practically achievable model for a sustainable campus with a 25% cut in energy use and a 20% reduction in greenhouse gas emissions per capita by 2025. Environment-friendly practices and principles to be considered for all construction projects, including solar energy, solar shading, natural ventilation, green roofs, eco-friendly construction materials, and low carbon strategies.

A principal recommendation is the implementation of a comprehensive pedestrian movement framework to provide comfortable access throughout the campus and to give precedence to pedestrians over vehicles. This will reduce reliance on motor vehicles, improve air quality and reduce environmental impact and noise levels. Also recommended is the conducting of a feasibility study to assess the viability of alternative forms of centralized energy production on campus and the consideration of measures to reduce emissions, including the use of solar-powered absorption chillers, of water from the sea or lake to provide natural cooling, of wind power to generate electricity, of solar collectors for water heating, and of photovoltaic panels to generate electricity.



其他重點 Other Highlights

計劃建議了一些在校園內具發展潛力的地點，以配合大學在2021年以後的發展，並獲持份者的廣泛支持，它們分別是有即時、中期和長期潛力的地點。具即時潛力的地點可以容納因實行本科四年制而亟需的建設，以及其他須要加強的研究設施。例子包括位於士林一巷的兩座新書院——伍宜孫書院和敬文書院。這兩所新書院，加上逸夫書院和聯合書院，以及日後落成的和聲書院，將共同組成校園北面的書院鄰里區。兩座書院的高度會與附近的建築物相若，其設計也會配合四周環境。

其餘建議的發展重點還有校園北部現叫三十九區的地方，該處將是實驗室雲集的研究樞紐；梁銜琚樓、馮景禧樓一帶則可發展為人文學科研究中心；此外，還提議考慮興建新的教職員宿舍。

Certain areas of the campus have been tentatively identified for development, with the widespread support of stakeholders, to accommodate the growth of the University beyond 2021. They include sites of immediate, intermediate and long-term potential. Sites of immediate potential will provide the shortfall in accommodation resulting from the four-year undergraduate curriculum and the establishment of enhanced research facilities. Examples include new Colleges on Residence Lane 1. Wu Yee Sun College and C.W. Chu College, will make up the northern college neighbourhood with Shaw College and United College, and the coming Lee Woo Sing College. Care will be taken to ensure that their heights are comparable with the surrounding buildings and that their designs are in harmony with the setting.

Other proposed examples are Area 39—Northside Research Campus which will include laboratory facilities, Arts and Humanities Hub, to be developed in the neighbourhood of Leung Kau Kui Building and Fung King Hey Building, and possibly staff residences. *



- ① 新書院 New Colleges
- ② 北部校園研究樞紐 Northside Research Campus
- ③ 人文學科研究中心 Arts and Humanities Hub
- ④ 教職員宿舍 Staff Residences
- A 伍宜孫書院 Wu Yee Sun College
- B 敬文書院 C.W. Chu College

碳審計：環保校園 善待地球

Carbon Audit : Towards a Lighter Tread on the Environment

由中大校園景觀美化委員會、校園環境委員會和節約能源工作小組共同籌劃的持續發展環保大使計劃，終於在5月展開。此計劃得到恒生銀行資助，是大學致力減低校園碳排放量的措施之一。

這個計劃每年舉行，目的是減低溫室氣體排放。大學各部門的環保大使會為所屬部門進行碳審計，並組織推廣活動，藉此逐步達至校園發展計劃所設定的目標——在2025年前，把校園的人均能源消耗降低百分之二十五，溫室氣體減少百分之二十。

為計劃掀開序幕的是5月19日舉行的全天工作坊，共有一百零二位來自八十八個教學和行政部門的環保大使和三名學生助手參加，聽取專家講授有關氣候變化、溫室氣體的知識和碳審計細節。這些大使回到各自部門後，將與同事分享所學，並在學生助手的協助下，填寫溫室氣體排放數據清單，日後計劃主辦單位可根據此清單，向各部門提供減碳建議。

碳排放清單

清單把碳排放分為三類。第一類是「直接排放」活動，這包括發電機、鍋爐、煤氣爐、乾衣機和車輛。第二類是「間接排放」活動，包括照明、通風、電器和電子設備。第三類是「其他間接排放」，包括用紙、廢紙循環再用、和用水。

過去成就

雖然這是中大首次進行碳審計，但本校一直致力校園環保和綠化，並屢獲嘉許。最近獲「2008香港環保卓越計劃」公共機構及非政府機構組別的「界別卓越獎」銀獎。

Initiated by the Campus Landscaping Enhancement Committee, the Committee on Campus Environment and the Energy Saving Task Force and sponsored by Hang Seng Bank, the University launched the Environmental Sustainability Ambassador Programme in May as part of its commitment to reduce carbon emissions on campus.

The aim of the annual programme is to lower greenhouse gas (GHG) emissions by assisting University units, through their ambassadors, to conduct carbon audits, thereby advancing the campus towards the green targets set by its Campus Master Plan: 25% reduction in energy use per capita and a 20% cut in GHG emissions by 2025.

A full-day workshop was held on 19 May. A total of 102 ambassadors from 88 teaching and administrative departments as well as three student helpers attended the workshop where they learnt about climate change, GHG, and the technicalities of carbon auditing, from professionals. The ambassadors then shared what they learnt with colleagues and completed, assisted by a student helper, a GHG emissions data checklist, which will help the programme organizers tailor recommendations for carbon reduction for them.

Carbon Checklist

The checklist comprises three categories of emission. Examples of the Scope 1 'Direct Emission' operations include electricity generators, boilers, gas stoves, dryers and dedicated motor vehicles.



有份籌辦此計劃的物業管理處處長譚必成先生與香港環保卓越計劃銀獎 Mr. Benny Tam, director of the Estates Management Office and member of the organizing committees, with the silver award of the Hong Kong Awards for Environmental Excellence

Scope 2 'Indirect Emission' operations involve lighting, ventilation, and electrical/electronic devices. Some examples of Scope 3 'Other Indirect Emission' operations are paper consumption, paper for recycling and water consumption.

Past Recognition

This may be the University's first carbon audit, but CUHK has long been recognized for its efforts at environmental protection. Most recently, it received the silver award of the 2008 Hong Kong Awards for Environmental Excellence (HKAEE) (Public Sector and Non-Government Organizations). *

環保大使經驗談

One Ambassador's Experience

任職物業管理處園藝組計劃助理的郭達茵，由上司黃秉雄先生推薦擔任環保大使。她把在工作坊所學教給同事，告訴他們辦公室內可以實行哪些環保措施，為改善環保盡一分力。事實上他們的確盡了不少力。「我們開始察覺，下雨天時辦公室會變得很冷，這時候我們不會去調溫度，而是關掉空調。外出吃午飯時，會把所有燈關上；還設定打印機的定時器，晚上七時自動關機。我們自己煮開水，不買瓶裝水。還放置回收箱，收集廢紙循環再用。」

郭達茵對於節省用紙印象特別深刻。「我原本不知道一個辦公室可有這麼多方法節省用紙。在我們的辦公室，過去只有在偶爾記起時，才會雙面列印，現在已成習慣。改動一下工作的方式，很容易上手。」

Peggy Kwok, project assistant at the Landscaping Section of the EMO, was recommended by her supervisor Mr. Billy Wong. After attending the workshop, she shared with her colleagues what she learnt and what they could do in their office to make a difference. And there have been differences. 'We started to notice that our office gets very cold when it rains, so we turn off the air-conditioner rather than adjusting the thermostat. When we go out to lunch, we switch off all the lights. We set our copier's timer so that it automatically powers off at 7 pm. We boil our own water rather than buy bottled water. We have a recycle box for paper.'

Peggy is particularly impressed by what she learnt about saving paper. 'I didn't realize there's so much offices can do to save paper. In ours, we used to do double-sided printing only when we remembered to. Now it's a habit. And not only that—we print a few pages on one sheet of paper. You may need to adjust the way you're used to working. But it's easy to get the hang of it.' *



環保大使的助手

The Ambassadors' Helpers

委派到八十八個部門的三名學生助手協助環保大使進行碳審計，並填寫數據清單，撰寫能源使用情況的報告。

攻讀應用社會研究的碩士生蔡恩恆（左）和護理學系三年級生區頌君（右）是其中兩位學生助手，第三位是數學系三年級生鄭偉杰。

蔡恩恆說，「我們的工作是與部門聯繫，並解答他們提出有關碳審計的問題，或要求他們提供資料，為他們做計算。審計做完後，我們會為每個部門撰寫報告，連同物業管理處的建議交回部門。」

區頌君說，與環保大使聯繫是最困難的，因為許多大使都很忙；其次是看懂複雜的燈光配置圖。蔡恩恆則覺得最難是確定用紙和回收廢紙的總重量，因為部門不會為用紙量重；有的部門又和同一大樓內的其他部門共用回收箱。遇到這種情況，他們只能靠估計。

Three student helpers were assigned to 88 departments to assist the ambassadors in conducting carbon audits and completing the checklist, and to compile reports on energy use.

Andrew Tsoi (left), a master student in applied social research at CUHK, and Cheryl Au (right), a Year 3 Nursing student, were two of

the three student helpers assisting the ambassadors to conduct carbon audits. The third was Steven Cheng (Year 3, Mathematics).

Andrew explains, 'We liaised with the departments and answered questions they had about the audit, or asked them for the figures and did the calculations for them. After the audit, we will write a report for each department which will go back to that department with recommendations from the EMO.'

Cheryl says that the most difficult part was getting in touch with the ambassadors, many of whom keep busy schedules, and making sense of the complex lighting plans. Andrew thinks the greatest challenge is finding out the weight of paper consumed and paper recycled because offices don't weigh their paper and some share a recycle container with other offices. *





樹木大夫 Tree Doctors

中 大有一群「大夫」對校園內一草一木都關懷備至，定期檢查樹木健康，他們就是物業管理處園藝組。讓我們翻開樹木病歷，一窺這些「大夫」工作的堂奧。

The Landscaping Section of the EMO keeps a watchful eye on the condition of the University's trees by performing regular health checks. Here's a glimpse into their case file. ✨

病患 Patient

- 利黃瑤璧樓附近的鳳凰木
Flame of the Forest (*Delonix regia*) near the Esther Lee Building

病因 Problem

- 樹木被薜荔纏繞覆蓋
The tree was overgrown with creeping fig (*Ficus pinnata*)

療法 Treatment

- 薜荔是常綠攀緣植物，可以入藥，是無花果的近親。薜荔一旦纏上樹木，就會像攀山專家一樣，一路快速往上攀爬。這棵樹被薜荔完全覆蓋，有窒息之虞。根據覆蓋的範圍判斷，這些寄生住客已生長了十至二十年，枝葉交織，形成巨大的覆蓋網絡，彷彿葉毯子一般，清除非常困難。樹木大夫最後清理出來的薜荔，共有兩層樓高。The creeping fig, an aggressive evergreen vine, is a relative of the edible fig and is used in Chinese medicine. It can quickly scale vertical surfaces like an experienced climber. The tree in question was almost completely cloaked by the vine and was in danger of death by suffocation. Judging by the extent of the coverage, the creeping fig has probably been making its ascent for one to two decades. Removal is difficult as the creeping vine covers surfaces with a network of fine stems and leaves, creating a mat of dense foliage close to the surface. The tree doctors cleared a section measuring two stories and work is still underway.

成效 Outcome

- 病患現已呼吸暢順無阻。
Patient can breathe freely.



病患 Patient

- 大學鐵路站附近的鳳凰木
Flame of the Forest (*Delonix regia*) near the MTR station

病因 Problem

- 樹幹出現空洞，樹枝細弱
Cavity in trunk, susceptible bough

療法 Treatment

- 一位中國大陸的樹木專家應邀出診。樹洞以護理一般傷口的方式處理：先清潔，後塗上甲殼素；甲殼素是可生物降解的物質，提取自龍蝦、螃蟹和蝦等甲殼類動物的硬殼，能增強樹木的免疫系統，有助抵禦真菌感染。園藝組員工曾到廣州取經，學習修補樹洞技術，趁着天氣好的時候，會用以環氧樹脂、泥沙和三合土混合而成的填充物料修補樹洞。樹枝有掉落之虞，因此建造了金屬枝架支撐。

A mainland tree specialist was hired to inspect and diagnose the tree. The cavity was treated like any wound: cleaned and then infected using Chitosan, a biodegradable ingredient extracted from the shells of crustaceans, such as lobsters, crabs and shrimp. Chitosan boosts trees' immune system against fungal infections. The cavity will be filled with a mixture of epoxy resin, sand and cement by staff who learnt the skills in Guangzhou. A metal brace was constructed to support the bough which was in danger of falling off.

成效 Outcome

- 病患正逐漸康復。
Patient on the path to recovery.



樹木大夫——園藝組經理黃秉雄先生
Mr. Billy Wong, Landscaping Manager, is a tree doctor

病患 Patient

- 科學館大學校徽對開兩側的兩棵雨樹
Two Rain Trees (*Samanea saman*) trees flanking the University logo at the Science Centre

病因 Problem

- 因天氣長期寒冷導致枯萎，根部受真菌感染
Withering due to prolonged cold weather and root fungus

療法 Treatment

- 校方在諮詢來自廣州的樹木病理專家後，為這兩棵樹制定了復壯計劃，包括換上新泥土，安裝透氣袋，以免淤泥阻塞供水，施以有機養分、根部護養劑、葉面肥和抗冷劑。在未來六個月，種植範圍會進行大規模土木工程，換掉舊泥土並擴大泥膽。After consulting plant pathologists from Guangzhou, the trees were put on a rehabilitation programme, which includes renewing the soil, administering organic nutrition, installing a pipe to prevent water-logging in soil, applying a root strengthening agent, leaf fertilizer, and anti-cold agent. In the coming six months, major civil works on the planting zone will be implemented to replace the soil and to enlarge the soil area.

成效 Outcome

- 未知之數，若這些措施無效，會在現有兩棵樹背後種植三棵新樹。
Uncertain, but in case these meticulous ministrations fail to work, three new trees will be planted behind the current location.

