香港中文大學
THE CHINESE UNIVERSITY OF HONG KONG

ENVIRONMENTAL REPORT 2003
二零零三環境報告

FOREWARD

This is our fourth Environmental Report of the Chinese University. I sincerely thank those who help to make our Chinese University campus more green and clean. Colleagues, students, alumni and friends, every one of us must work hand in hand together to build a green and environmental friendly campus congenial to our task of the university.

We cho ose the new scenic spot “Human and Nature United” of New Asia College as our cover photo of this report of 2003. The wisdom of traditional Chinese culture and Confucianism mentioned and advocated that human should emphasize to make harmony with our mother nature, follow Mother Nature’s rules, eventually human and nature must unite together. To sustain campus development and campus activities, we have to find ways and make affords to minimize wastes, conserve natural resources, and make harmony with our mother nature.

In the past, we have already established some guidelines, policy and targets for environmental protection. We look forward to making new breakthrough in other areas to make human and nature united, live and work harmony with our mother nature. Your comments, advices and involvements in environmental protection on campus would be much appreciated.

前言

這是中文大學的第四份環境報告。在此，我謹謝謝各位曾努力地使中大校園更清潔、更翠綠。各位同事、同學、校友和各界朋友，大家須共同協作，攜手努力來建設一個綠色和環保校園，來履行大學的使命。

這份 2003 年的報告，選擇了新亞書院的新景點—《天人合一》作為封面照片。中國傳統文化和儒家思想提及到天人合一觀，旨在提倡人與自然的和諧共處，順應天理，最終達致天人合一。我們要竭力減少廢物排放，保護自然資源，與大自然和平共存，才能更有效地持續發展校園及推行校園的活動。

我們過去已訂定了一些保護環境政策、目標和原則。未來亦將尋求新突破，以達成《天人合一》，與大自然和諧共處。歡迎大家給我們意見、指導、與及參予校園的環保工作。

Prof. K. M. Chan
Chairman of the University Steering Committee on Environment
大學環境事務督導委員會主席
陳竟明教授

ENVIRONMENTAL POLICY

The Chinese University of Hong Kong seeks continually to improve the environmental quality of the campus to provide a congenial environment for teaching, learning and scholastic activities.

The University is committed to ensuring that all activities run by the University are conducted in an environmentally responsible manner and has adopted the following guidelines in pursuance of this commitment:

- We endeavour to build a clean and green campus congenial to the fulfillment of the purposes of the University;
- We seek to comply with all applicable environmental legislation, standards and regulations;
- We avoid, reduce or control environmental pollution arising from our activities and to require our contractors to adopt and implement similar environmental measures;
- We seek continual improvement in the efficient use of energy and other natural resources;
- We raise environmental awareness among staff and students and set the University as a model in environmental education and environmental management;
- We ensure good management practices by reviewing them regularly and ensure that they are tuned to the changing internal and external circumstances.

環境政策

香港中文大學致力改善校園環境，未嘗稍懈，務求為教授、學習及其他學術活動提供一個理想環境。

我們力求本校所有活動都能顧及環保的責任。為了達到這個目標，本校制定了下列指導原則；

- 努力建設一個青葱整潔的校園，使員生能在愜意的環境之中履行大學使命；
- 恪遵所有現行的環保法例、標準和規則；
- 大學所有活動必須避免污染環境，或盡可能減少或控制污染。我們還會要求承辦商奉行同樣的環保措施；
- 力求善用能源及其他天然資源；
- 提高員生的環保意識，讓大學成為環保教育及環境管理的榜樣；
- 定期檢討管理方式，務求妥善，並配合校園內外情況的轉變。

CONTENTS 目錄

HISTORICAL CHANGE OF CUHK ENVIRONMENT

The University began construction in 1969 from a plateau near Shatin. The site was preferred because Chung Chi College was already there and it is large enough for developing a university campus for the Central Campus and other constituent Colleges. The site formation works were also partially ready for development due to the large quantity of topsoil already removed for building the Plover Cove reservoir. Nowadays, the campus of The Chinese University of Hong Kong occupies 134 hectares on a mountain overlooking the Shatin Sea to the east and Tolo Harbour to the north. The once barren hill is now a magnificent, verdant campus dotted with some 130 buildings, one-third of them was built before the 1980's. Although the majority of these buildings is for teaching, research and residential purposes, a few buildings is for other daily operations such as canteen management and Dangerous Goods management.

1963-69

The overall plan of the University campus was developed by the world-famous architect I. M. Pei in collaboration with Szeto Wei, the University architect, in the first period of large-scale construction. An embryonic form of the campus then emerged. In 1969, the University's administration moved into the Benjamin Franklin Centre, the first building on the new campus in Shatin.

1970s

The Chung Chi campus was already in existence at its present site before the establishment of The Chinese University. United College and New Asia College moved onto the Shatin campus in 1972 and 1973 respectively. With the completion of the main buildings of the University Central Campus, such as the Institute of Chinese Studies, the University Administration Building, the University Library, the Science Centre, and the University Sports Centre, the university campus gradually took shape.

1980s

In the 1980s, The Chinese University campus continue to develop. New buildings on the Central Campus included the Choh Ming Li Basic Medical Sciences Building, the Sir Run Run Shaw Hall, and the John Fulton Centre. Plans were made in 1986 to establish Shaw College, whose buildings were completed in the late 1980s. The buildings of Chung Chi, already some thirty years old, were redeveloped in phases.

1990s

This was a period of rapid development with the addition of the Ho Sin-Hang Engineering Building, the Mong Man Wai Building for the Science Faculty, the latest sports facilities such as the Kwok Sports Building, and undergraduate and postgraduate hostels. New guest houses, including the Chan Kwan Tung Building and the Chiangs Building, were completed to accommodate the increasing number of visitors to the University. The new Chung Chi student hostel and teaching blocks were completed. The eastern campus developed rapidly following the land reclamation and land exchange with the Government.

2003

As the Chinese University advances into its fifth decade, staff and students can enjoy a campus that is both beautiful and functional. The entire campus is fully linked with optical fibres; a teaching hotel and several academic buildings are under construction. Many buildings are being renovated and facilities are being upgraded. Despite new constructions, the campus is ever more environmentally friendly and green. The campus is now a place of tranquility and beauty, a place where the mind is stretched, the body is rested and the soul is soothed.

Key Landscape Issues & Strategic Development

The University is mainly surrounded by hills and waters. There are residential villages to the north of the campus. In addition, there are over 300 slopes around campus and approximately 40 of them had received "Dangerous Hillsides Order" from the Building Department, HKSAR, requiring them to undergo slope stability works. The Campus Development Office (CDO) hires consultants and contractors to carry out the slope stability works to prevent fall of rock and soil erosion. In the design and construction stages, the landscape architects consider the factors of civil engineering, ecology and other environmental issues and 3% of the project sum is budgeted for greening the slope.

重要的景觀問題和策略發展

中文大學山環水抱，校園以北有民居村落。校園周圍有逾三百處斜坡，其中約四十處接到屋宇署的「斜坡修葺令」，要施行山坡鞏固工程。大學校園發展事務處聘請了顧問和承建商負責斜坡鞏固工程，以防止山泥傾瀉和水土流失。建築師在設計和施工期間，須兼顧土木工程、生態和其他環境問題。並以工程經費的百份之三，用於綠化山坡工作。

滄海桑田

香港中文大學校園依山而建，東眺沙田海，北瞰吐露港，佔地134公頃，原為多石之山丘，1960年代起陸續開闢成多個平台，供興建校舍之用。原來之濯濯荒山，今日已變成擁有近130幢建築物，綠茵滿目，氣象萬千的大學校園。

1963-1969

創校初期大興土木，校園整體設計由世界知名建築師貝聿銘及大學建築師司徒惠協作。校園之雛型逐成，而大學總部亦於1969年初遷入沙田新校舍的首幢建築物 - 范克廉樓。

1970年代

崇基校園在中大成立之前已位於現址，聯合及新亞則先後於1972及73年遷入沙田。大學本部之主要建築如中國文化研究所，行政樓，圖書館，科學館，大學運動場等，亦相繼落成，大學校園漸具規模。

1980年代

中大校園於1980年代穩定發展，大學本部眾多新建築物之中包括李卓敏基本醫學大樓、邵逸夫堂以及富爾敦樓等。逸夫書院處於校園西北，於1986年開始籌建，其校舍於八十年代後期落成；已有30年歷史的崇基建築樓群亦於此時分期重建。

1990年代

大學急速擴展，校園增添了工科大樓何善衡工程學大樓、理科大樓蒙民偉樓、汾陽體育館，以及多幢本科和研究生宿舍。新建的大學賓館昆棟樓和曙光樓亦投入服務，接待日多的大學訪客；崇基新學生宿舍和教學樓群陸續竣工；校園東區的發展也隨填海和與政府換地而日益興旺。

2003年

於大學慶祝成立四十周年之際，校園每個角落都已鋪設光纖網絡，教學酒店及多幢教研大樓亦在興建之中。大學不斷更新及改善校園設施，同時推動環保和綠化，好使優美的校園成為宜學、宜遊、宜憩的好地方，裨益一代又一代的中大師生。

2003

Land Holding 佔地
(Hectares 公頃) : 134
Number of Buildings
建築物總數 : 130
Number of Students
學生人數 : 16,855
Number of Full-time Staff
全職教職員人數 : 5,017

1963-1969

1990'S

1970'S

1980'S

2003

LEAF & FEATHER

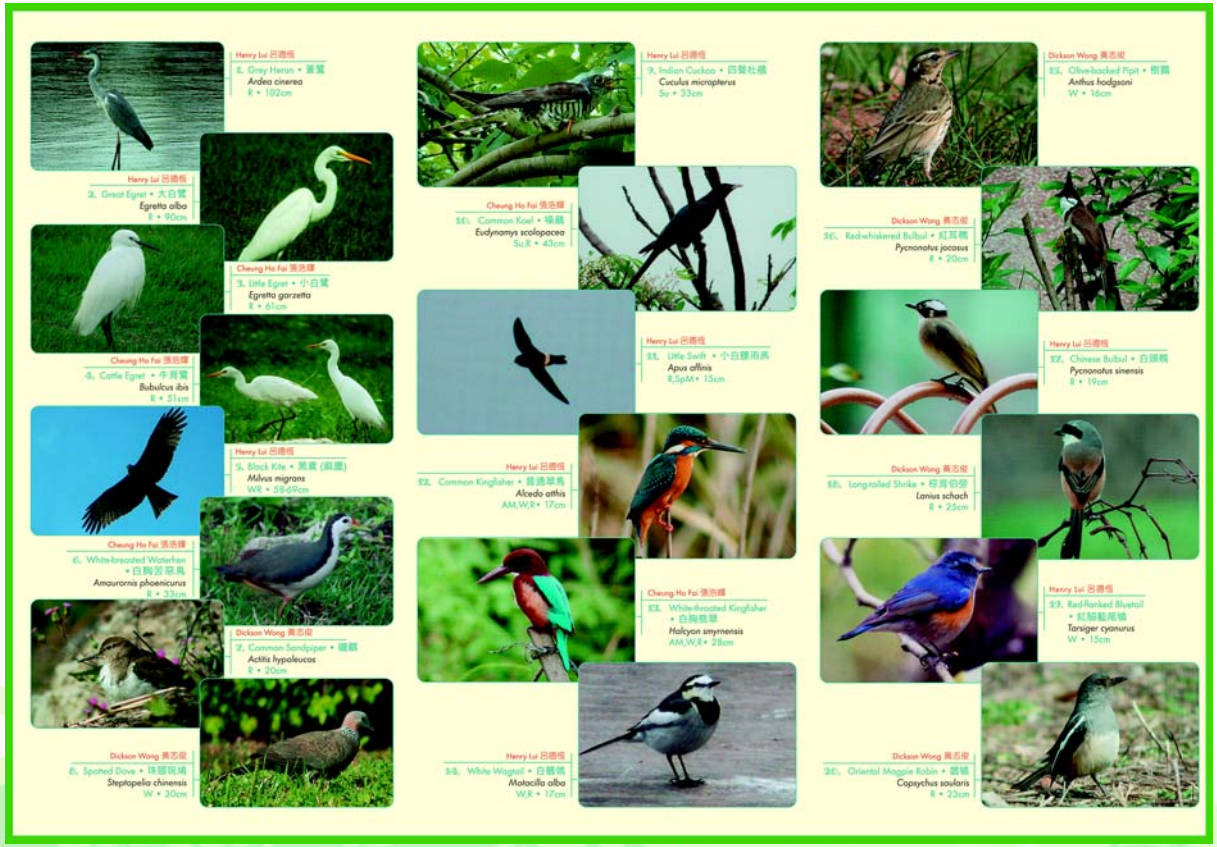
Blessed with a beautiful scene of Tolo Harbour, The Chinese University of Hong Kong (CUHK), lying on a spacious campus, is located next to Tai Po Kau Natural Reserve, surrounded by six wonderful country parks in the New Territories. Two streams flow via the peaceful Weiyuan Lake to the Tolo Harbour. This unique natural campus environment is the valuable asset to the University. From the available data obtained by the various measurements, the environment of the CUHK campus is untamed.

More than 100 tree and shrub species, mostly native, can be found along the roadside and the trail paths such as Red Pine, Banyan, Blue Lotus, White Orchid Tree, Sweet Gum, etc. To protect the plants, Estates Management Office (EMO) drafted the "Green Planting Policy" in 2002, stating the commitments and objectives of protecting the plant species and listing the protected species and criteria of protection. Last year, the Landscaping Section of EMO planted 531 trees, 11,059 shrubs, 17,018 flower plants, 5,183 ground cover and 4,952m^2 of grass to increase the greenery of campus.

鳥與樹

香港中文大學位於美麗的吐露港，佔地遼闊，毗鄰大埔滘自然保護區，周圍還有六個景色宜人的郊野公園。校園內兩條小溪經寧靜的未圓湖流入吐露港。這樣不凡的自然環境，是中大的一個重要資產。由過去的一些數據看，中大校園的自然環境仍未受到破壞。

校園路旁的樹木和灌木超過一百種之多，例如紅松、印度榕樹、藍睡蓮、白蘭樹、楓香等。中大物業管理事務處在二〇〇二年擬定了「綠化種植政策」，宣示保護植物品種的承諾和宗旨，並列出受保護植物品種和保護準則。去年，物業管理處園藝組種植了五百三十一株喬木，一萬一千零五十九株灌木，一萬七千零一十八株顯花植物，五千一百八十三株做地被植物，以及四千九百五十二平方公尺的草地，以增加校園的植物覆蓋面。



Pals on Campus

Some of them are the residents in the University growing more than 50 years and become the "landmark" of CUHK :

校園雅客

校園中不少植物伴隨中大成長，其中一些是本校「原居民」，樹齡有五十多年，已成為大學的「地標」：

紫檀（蝶形花科）Burmese Rosewood
Scientific Name: Pterocarpus indicus Willd
在崇基學院何添樓外的停車場旁種植了這顆紫檀。紫檀是一種高大、生長緩慢的落葉喬木、可高達40米或更高，是一最優良的遮蔭樹。
This Burmese Rosewood tree could be found at the parking lot outside Ho Tim Building at Chung Chi College. A big slow-growing deciduous tree, Burmese Rosewood can reach a height of 40 metres or more and makes an excellent shade tree.

落羽松（杉科）Deciduous Cypress, Common Cypress
Scientific Name: Taxodium distichum (L.) Rich.
這顆落羽松生長於崇基學院牟路思怡圖書館旁停車場。落羽松是一種由美國南部傳入的落葉喬木，生長高達45米而具有3.5米的樹圍。
This deciduous cypress could be seen at the parking lot outside Elizabeth Luce Moore Library of Chung Chi College. Deciduous cypress trees come from the Southern United States, growing to 45 metres in height with a girth to 3.5.

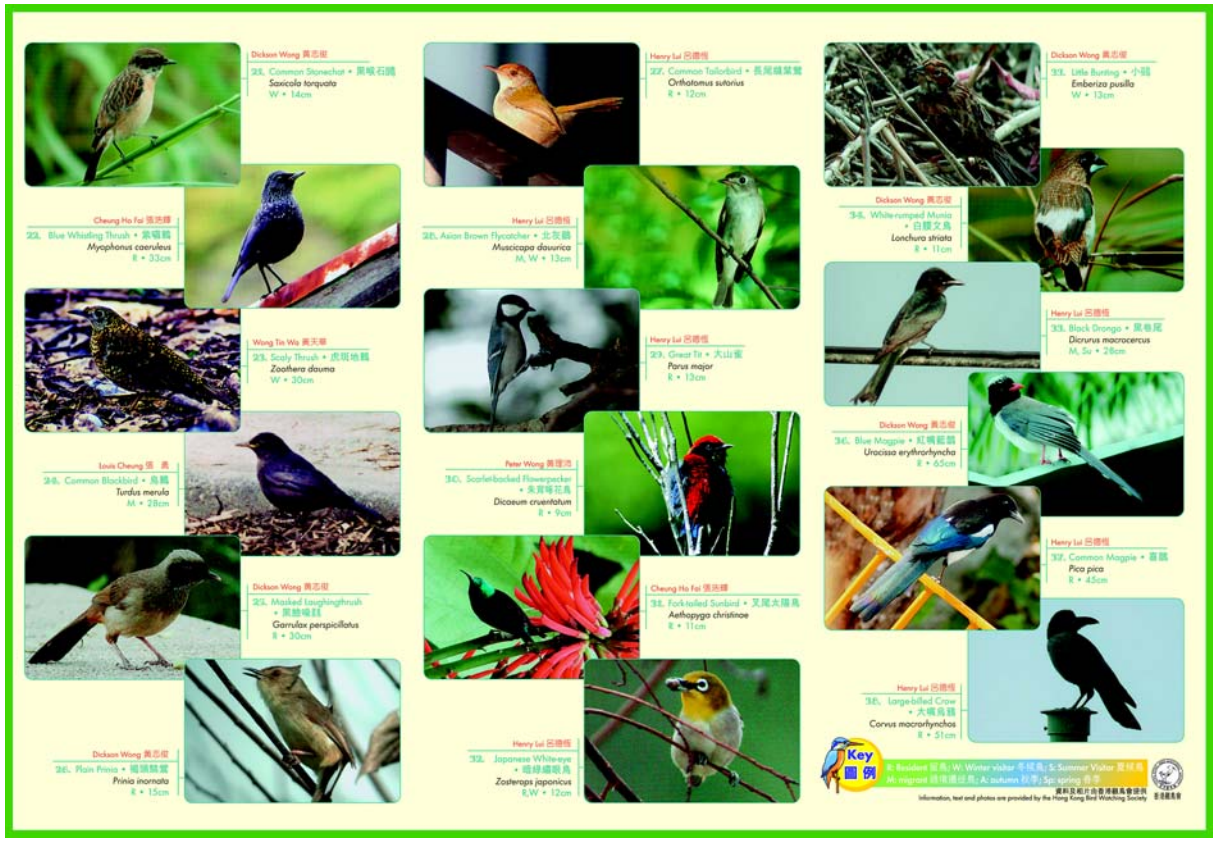
細葉榕（桑科）Smallfruit Fig
Scientific Name: Ficus microcarpa L.f.
在聯合書院鄭棟材樓外的草地可看見這顆細葉榕。細葉榕為高大、擴展廣闊的常綠喬木，具有無數纖幼成流蘇狀的氣根由枝條下垂，生長緩慢，具有闊大濃密樹冠。
This small fruit fig tree is planted at the grassland outside T C Cheng Building at United College. Small fruit fig trees are large, wide-spreading, evergreen trees with numerous tassels of slender aerial roots hanging from the branches. They are slow-growing, with a wide dense foliage crown.

高山榕 Lofty Fig
Scientific Name: Ficus altissima Blume
這顆高山榕樹正生長於大學道之路旁，向所有由大學正門進入中文大學的人士致以歡迎。高山榕樹為高大常綠喬木，可高達35米。果成熟紅色，著生於柔軟的枝條上。
When people enter the University campus from the main entrance, one will be greeted by this lofty fig along the University road. Lofty figs are tall evergreen trees, reaching 35 metres in height. They have striking red fruits on slender branchlets.

大葉合歡（含羞草科） Lebbeck Tree
Scientific Name: Albizia lebbeck (L.) Benth.
在聯合書院湯若望宿舍外的草地上種植了這顆大葉合歡。大葉合歡為高大落葉喬木，可高達15米，在香港可用作遮蔭及觀賞用。
A lebbeck tree is planted at the grassland outside the Adam Schall Residence at United College. The lebbeck trees are tall deciduous trees, reaching 15 metres in height, widely grown in Hong Kong for shade and ornament.

Flying in the Sky

The Chinese University of Hong Kong (CUHK) is the home of many local bird species. Its vegetation cover also plays host to migrant birds passing through in spring and autumn as well as birds escaping from the intense coldness of northern lands in winter. The CUHK campus holds approximately 30% of the 448 species in Hong Kong. With the co-operation of CUHK staff and students and the Hong Kong Bird Watching Society (HKBWS), a checklist is designed that all the 131 species which have been recorded within the CUHK campus in the last 25 years. The species numbers, sequence, scientific names, common names in Chinese and English, their categories and their principal status are based on The Avifauna of Hong Kong published by the Hong Kong Bird Watching Society. It will also help the observer to identify whether he or she has found a species new to the CUHK. Observers are encouraged to submit record or new discoveries to the Records Committee of the Hong Kong Bird Watching Society.



天際翱翔

香港中文大學是多種本地鳥類的家，校園內的植被亦提供了棲息場所給春、秋遷徙過境的鳥類補充體力後再上征途，以及讓從遙遠的北方到來避寒的候鳥渡過冬天。中文大學所錄得的鳥種約佔香港448種鳥類的三成。在中文大學員生及香港觀鳥會努力合助下，共同製作一本名錄，提供在中文大學的鳥類資料，方便查閱。名錄紀載了過去25年在中文大學校園錄得的131種鳥類。名錄的鳥種編號、次序、科學名稱、常用中文和英文鳥名、類別以及個別鳥種在香港的居留狀況，是根據香港觀鳥會出版的《香港鳥類名錄》編制，名錄內的鳥種亦以同樣方式排列。這部名錄可作為地區鳥種紀錄冊，紀錄全年在中文大學所見鳥種，亦可作為輔助識別新鳥種的工具。歡迎提交鳥類資料或新鳥種的紀錄。

WORKING TOGETHER FOR A BETTER ENVIRONMENT

The University's environmental management structure is organized into three tiers. The first tier is where policies and decisions are made by a number of committees. The second tier involves the actual execution of environmental tasks by various administrative units and academic departments. The last tier is the promotion of environmental awareness amongst student bodies and Colleges. The roles of these different tiers will be elaborated in the following sections.

For the first tier, major environmental policies and decisions are made by the University Council and other committees. Protecting the environment has never been solely about stopping pollution. Problems from new developments need to be anticipated and prevented. Campus Planning Committee (CPC) is a committee of the University Council to take up the an active role to advise the Vice-Chancellor on campus planning and deal with all matters including the environmental aspects relating to the campus master development plan, including proposal and programmes and utilization of space and facilities. University Steering Committee on Environment (USCE) is the environmental policy maker in CUHK. The members of USCE and its task forces include staff from administrative offices and academic departments, college representatives, student representatives to ensure the wide communication among different groups in the University.

Regarding departments/units of the University whose work may be more directly related to the environment, the University Safety and Environment Office (USEO) co-ordinates the relevant offices such as the Estates Management Office, the Campus Development Office and the Transport Unit to assist USCE in implementing various environmental projects and plans. The Environmental Officer and other professionals such as Safety officers, Transport Officer and Canteen Service Officer oversee the daily operation of campus transport, canteens and restaurants, construction sites, laboratories, etc. to maintain the University's hygiene, safety and environmental standards consistently above legally required levels.

In addition to the two tiers mentioned above, a Safety and Environmental Co-ordinator Scheme has been assigned in each department to promote and communicate the environmental issues such as waste reduction and energy management within the workplaces. Colleges also play an important role in organizing activities which promote environmental awareness. They are usually carried out by the College Student Affairs Section and the College Environmental Committee.

合力營造更佳的環境

大學的環境管理架構分為三個層次，其一包括大學委員會，負責訂定有關政策；其二包括不同的行政單位和學術部門，負責執行實際的環保工作；其三包括學生團體和各學院，合力推廣環保意識。以下分別闡述各層面的工作。

第一層面，大學校董會和其他委員會制定環保政策。環保工作不單是要防止環境污染，更須預防新發展可能產生的環境問題。校董會屬下的校園計劃委員會，就校園計劃向校長提出積極建議，並負責校園全盤發展計劃的所有問題，包括處理環境問題、制定建議和計劃，以及規劃空間和設施的應用。大學環境事務督導委員會則負責制定大學的環保政策。這個委員會的成員和工作小組，包括各行政部門和學系的職員、學院代表以及學生代表，確保校內不同群體有廣泛聯繫。

大學一些部門單位的工作，與環保息息相關，例如物業管理處、校園發展處和交通組等，有關環保工作由大學安全及環境事務處統籌，協助環境事務督導委員會實施不同的環境保護計劃和工程項目。環保主任和安全主任、交通運輸主任、膳堂服務主任等專責同事，則負責監督校園交通、飯堂、餐廳、工程地盤、實驗室等的日常操作，以維持大學的衛生、安全和環境水平在法定標準以上。

除了上述兩個層面，各部門及學系均按照一套安全及環保聯絡員統籌計劃，負責推廣環保事務及貫徹環保工作，例如在工作間減少產生廢物和節省能源。各學院的學生事務處和學院環境委員會也積極籌辦活動，推廣環保意識。

The staff from USEO regularly conducts site inspection to ensure the environmental performance of the contractors.
大學安全及環境事務處職員會例行到工程地盤巡視，以確保承建商的工程符合環保原則。

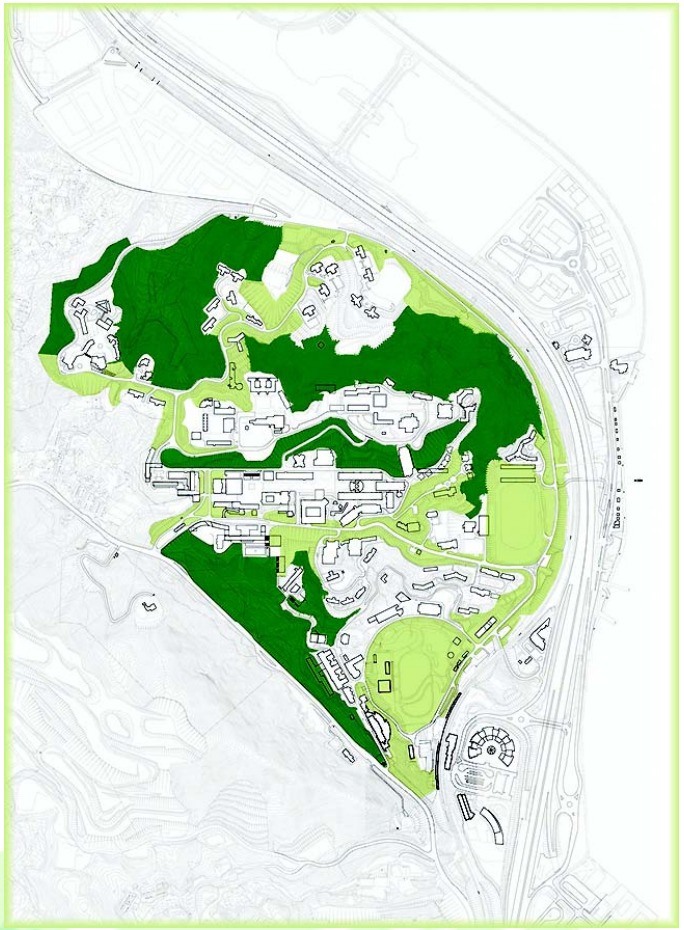
Plan showing the proposed landscape preservation zones
附圖是建議的景觀保護區：

Full Protection Zones
全面保護地區（FPZ）

No manner of construction or development should be permitted to occur in or close to these areas, except for minor projects aimed specifically at augmenting their inherent qualities or increasing accessibility.
任何工程和發展都不應在這些地區或其鄰近地區進行。旨在維護這些景觀或方便前往觀賞的小規模工程，則不在禁止之列。

Limited Development Zones (LDZ)

These are open areas which contribute in modest ways to the scenic and visual qualities of the campus, and which may accommodate additional development.
有限度發展地區一校園上一些空曠地方，對景觀不無補益，但可供進一步發展。



Chung Chi College

The Campus Environment Committee of Chung Chi aims to advise the College; to monitor on for maintaining a high standard of environmental hygiene on campus and to promote environmental awareness among students and staff.

In 2003, the Committee organized the Environmental Protection Cup with various inter-hostel competitions such as Water Saving, Electricity Saving, Used Paper Collection, Used Aluminum Cans Collection, Used Plastic Bottles Collection and Slogan Design and Wei Yuan Lake Signage Design Competition . The Committee also organized the Environmental Protection Week in March and Environmental Ambassador Programme to promote environmental protection on campus. Apart from student activities, the Committee also organized a Tea Session Gathering and Survey to collect opinions from the staff. The Committee also actively participated in and coordinated other environmental programmes organized by Environmental Protection Department (EPD) and Environmental Campaign Committee (ECC) such as ECC Shell Environmental Award and Waste Recycling Scheme in Tertiary & Vocational Institutes Phase IV.

崇基學院

崇基學院校園環境委員會的宗旨，是就環保工作對學院提供建議，監察學院維持高水準環境衛生的工作，以及對學生和教職員推廣環保意識。

二〇〇三年，該委員會舉辦環保盃和一系列宿舍環保比賽，例如節省食水、節省電力、收集廢紙、收集鋁罐、收集膠樽、標語設計、未圓湖標示設計等比賽。委員會又於三月份舉行環保週和環境大使計劃。除了學生活動，委員會還舉行茶會和調查，以收集教職員對環保的意見。委員會並積極參與或協助校外環保機構的活動，包括環境保護署和環境保護運動委員會的活動，例如環境保護運動委員會蜆殼環境獎、大專及職業訓練學院第四期廢物回收循環再用計劃。

New Asia College

With the purpose of promoting a general awareness of the environmental protection in the campus, the Environmental Committee worked on various ways to achieve the above goals. The highlight was the "Fourth Environmental Protection Week" held from mid-January to mid-February, 2004. A series of activities were carried out including the Ecological Tour led by Dr. Wu Sau Ying, "Fai Chun" (Greetings for Chinese New Year) Writing Activity at student hostels, Special Lecture at College Bi-Weekly Assembly, Board Exhibition on Environmental Protection, Used Clothing Collection Campaign and Visit to Mai Po Nature Reserve.

In order to let the staff and students to enjoy the fun of farming and promote the concept of organic farming within the campus, Organic Farming Activity among resident students, non-resident students and staff. Moreover, the information on electricity, water & gas consumption of every student hostels, current affairs on environmental protection and related news were posted up. It was hoped that students' view on environmental protection could be broadened and their understanding on this matter could be enriched.

新 亞 書 院

新亞書院環境委員會創會目的在於促進校內員生的環保意識，所以每年均舉辦不同的活動以達此目的，其中最重要一項為書院環保週。本年度的環保週已於二零零四年一月中旬至二月中旬期間順利舉行，一連串活動包括由胡秀英博士帶領的校園生態遊、揮春寫作比賽、書院雙周會專題講座、環保資料展覽、衣服回收活動及參觀米埔自然保護區等，希望透過活動的參與達至目標。

此外，為讓師生可一嘗耕作的樂趣及推廣有機耕作這概念，委員會特於書院籌辦有機種植活動，以令他們一方面可享受種植樂趣，另一方面亦可學習何謂有機耕作。亦會於各環保資訊板上詳列各學生宿舍的電力、食水、石油氣的消耗量，以及環保和其他相關訊息，務求拓展學生的環保視野，加強他們對校內環保問題的了解。

Shaw College

The Environment Enhancement Committee of Shaw College promotes general awareness of environment hygiene, campus ecology and related matters among staff and students. In the 2003/2004 academic year, the Committee organized an Eco-photography Workshop, through a series of workshops and practical lesson, participants were strengthened their knowledge in campus ecology and environment. In addition, the Committee also organized a series of Guessing Game of electricity consumption at student hostels to arouse environment awareness and promote energy conservation among students and staff.

逸夫書院

逸夫書院環境促進委員會致力推動同學及教職員對環境保護、校園生態及其他環保事宜的認識。在二零零三至零四學年期間，委員會籌辦了生態攝影工作坊，透過專題講座及戶外實習，加深同學及教職員對校園生態及書院環境的認識。另委員會亦積極鼓勵書院員生節約能源，舉辦了宿舍「慳」電競猜遊戲，將環保訊息帶進日常生活裡。

United College

The Environmental Committee of United College formed the first college-based student society, United College Environmental Protection Society, in 2003 to organize a series of activities on the UC campus to raise people's environmental awareness among students. Besides, an Organic Farming Group ran the farm work session for students to plant sweet potatoes, carrots and tomatoes. A booth was set up to sell the products and further promote the concept of organic farming in 40th Anniversary Walkathon & Carnival.

The popular Energy-Wise Award Scheme, organized by the Committee and the Hall Residents' Associations, is being held throughout 2003. The scheme aims to raise hostel residents' awareness of the need for energy conservation and motivate them to economize the consumption of electricity and water. The Committee also organized a walk activity with the Shatin District Board so as to promote balanced diet, physical exercise and good health for Shatin residents in United College campus.

聯合書院

二〇〇三年，聯合書院環境委員會成立了首個以學院為基礎的學生環保團體-聯合書院環保會，在聯合書院校園舉辦了一連串活動，以提高學生的環保意識。此外，有機耕種小組為學生籌辦有機耕種活動，種植甘薯、紅蘿蔔、蕃茄。在四十週年步行籌款和嘉年華會上，學生擺設攤位將所種有機產品出售，進一步宣揚有機耕種的觀念。

善用能源計劃歷年深受歡迎，二〇〇三年更由委員會與宿生協會合辦，目的是提高宿生節約用電、用水的意識。委員會又與沙田區議會在聯合書院校園合辦一個「識玩識食步行日」，向沙田居民推廣平衡飲食、運動和保健意識。

POLLUTION CONTROL & WASTE MANAGEMENT

Air Pollution

The rapid decline in air quality is the top environmental problem in Hong Kong. Looking across Tolo Harbour, a blanket of smog still hangs in the air on many days. To protect the health and well being of the community, the CUHK maintains the satisfactory air quality by legal compliance and planning, such as :

* All school shuttles owned by CUHK and contractors' shuttles are regularly maintained and installed with diesel oxidation catalytic converters. Trails have been built between Colleges and the main campus.
* "Enginee Off, Wait Green" is being promoted to all drivers to raise the public awareness about green driving practice.
* Buildings have been designed so that its elevators can provide access to different topographical levels.
* Scrubbers, electrostatic precipitators and extending kitchen exhausts to rooftop are installed in all university canteens and restaurants to prevent any noticeable catering odour.
* Dust suppression measures such as wetting and canvas covering are used to minimise the dust emission during construction works.
* The ventilation system of all academic and administrative buildings is properly maintained to ensure its effectiveness. Monitoring of temperature, humidity, carbon dioxide, volatile organic compound (VOC), etc. is regularly conducted to ensure a healthy Indoor Air Quality (IAQ).
* Indoor smoking control has been implemented since 80s' to make CUHK a smoke-free campus.
* Halon / BCF fire extinguishers have been replaced by ozone friendly one.

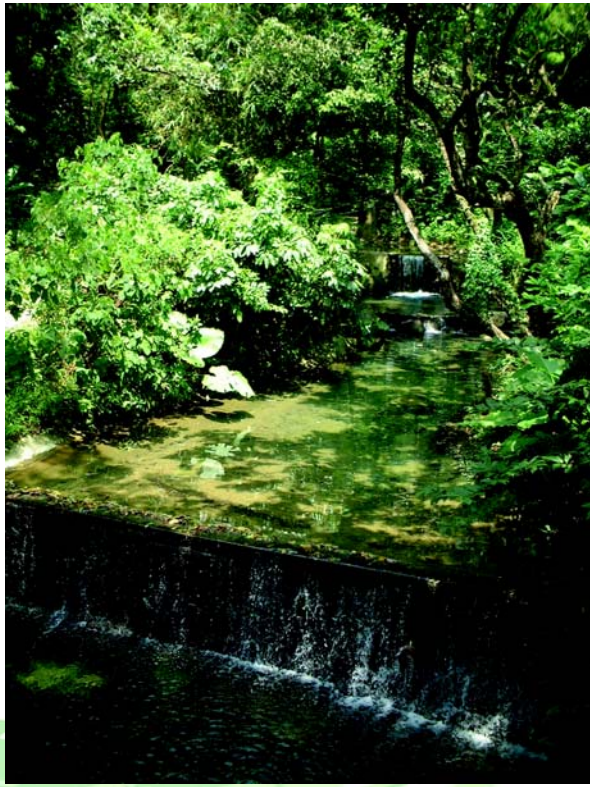
Monitoring of Indoor Air Quality is conducted in various Department offices.
校園內的空氣質素均受到嚴格監測。

污染管制和廢物處理

空氣污染

空氣質素急速轉壞，是香港最嚴重的一個環境污染問題。吐露港上空經常煙霧瀰漫。中文大學除了按照法例規定，還擬定計劃，維持空氣質素在滿意水平，以保障大學員生健康。措施包括：

* 中大的校巴以及承辦商的校巴，須定期維修，並安裝柴油催化轉化器。各學院與校本部之間也都闢建小徑，可供步行。
* 促請司機遵守「停車熄匙」原則，提高其環保意識。
* 建築物經特別設計，其升降機可載乘客上落校園不同的地方。
* 大學所有的飯堂和餐廳都安裝了洗滌器、靜電濾塵器以及通往屋頂的排氣裝置，盡量減少廚房油煙氣味。
* 工程場地都要採取防塵措施，例如灑水、以帆布遮蓋等，盡量防止施工期間塵埃飛揚。
* 所有教學和行政大樓的通風系統都有適當維修，以確保有效操作，並定期監察室內的温度、濕度、二氧化碳含量、揮發性有機化合物含量等，務求室內空氣質素符合健康標準。
* 中大自八十年代起已實施室內禁煙規定，致力建立一個「無煙校園」。
* 哈龍/氯氟化炭滅火器已由不損臭氧層的滅火器取代。



Water Pollution

There are two natural watercourses in the University: the eastern one originates from the village of Chek Lai Ping and the western one originates from the New Asia Campus, going into the Tolo Harbour via the Weiyuan Lake. The network of storm drains and sewers have also been built in the past three decades. The storm drains were built to collect the rain water and surface run-off from road surfaces and roof-tops, and to divert them into the natural watercourses. The cleaners and workers are instructed not to discharge the car-wash or spent lube oil and paint into the storm drains. The contaminated wastewater generated from residences, student hostels, offices, laboratories, canteens, etc, are discharged to the sewers and channelled to the Shatin Treatment Works for disposal. To reduce the loading of treatment, grease trap is installed in each canteen to segregate the oily waste and wastewater. To ensure the effectiveness of these measures, water quality is regularly monitored at different locations such as drinking water tank, flushing water tank, chilling water tower, swimming pool, drainage system, stream and lake according to hygiene and environmental protection standard.

防減水質污染

大學裏有兩條天然水道，東面一條源自赤坭坪，西面一條源自新亞書院校園，都經未圓湖流入吐露港。過去三十年，中大還建立了排洪渠和污水渠系統。排洪渠可疏導路面和屋頂的雨水，引入自然河道。大學並指示清潔工人和其他職工，不可將洗車水、廢潤滑油和油漆傾倒入排洪渠中。至於教職員住所、學生宿舍、辦公室、實驗室、飯堂等的污水，則由污水渠引入沙田污水處理廠。每個飯堂都安裝了隔油器，分隔油污和廢水，以方便污水處理。校內的食水池、廁水池、冷水塔、游泳池、渠道、溪流、湖水等的水質，都有定期檢查，確保符合衛生和環保標準。

Noise Control

Noise is caused by the vibration of air particles in the atmosphere. In crowded Hong Kong, everybody is inevitably affected by noise. Noise can be measured on a decibel scale. In CUHK, the sound level of a lecture room is about 52 decibels, the sound level of office is about 55 decibels, while the sound level of library is about 50 decibels.

Whether in the home, school or on the street, the roar of traffic, construction noise or noisy air-conditioners is inescapable. The difficulty in Hong Kong is that there is no perfect solution to noise and there are many physical constraints. For example, the New Postgraduate Hall faces noise problem as it locates besides the Tolo Harbour and railway. With this experience, the University prevents, minimises and resolves environmental noise problems through precise planning, implementation of noise abatement measures and enforcement of the Noise Control Ordinance. The University aims to contain road traffic noise in residential areas to 70 decibels and has laid down different limits for other stationary sources.

Trees are planted on the roadside as natural noise barrier to reduce the noise transmission affecting the nearby residents.
大學校園路旁遍植樹木，作為天然的噪音屏障，以減少噪音對鄰近居民

噪音管制

聲音是由大氣層中空氣份子震動形成。香港人煙稠密，無人不受噪音影響。聲音大小可用分貝量度。香港中文大學課堂內的聲量約為五十二分貝，辦公室是五十五分貝，而圖書館的聲量約為五十分貝。

無論是在家中、學校裏或街道上，交通、建築、冷氣機等的噪音，都是無可避免的。香港受到種種實環境限制，不可能有完美的解決方案。例如研究生宿舍位於吐露港畔，面臨鐵路，難免受到噪音影響。有鑑於此，大學在校園建設上悉心策劃，採取減噪音措施，同時嚴格執行噪音管制條例，以防止、盡量減少和解決環境噪音問題，力求住宅區車輛噪音不超過七十分貝，其他地方亦有不同的噪音標準限制。

The USEO staff always measures the environmental noise level and occupational noise level of the construction sites and renovation works.
大學安全及環境事務處職員經常到校內的建築工程地盤和施工場地，測量環境噪音水平和職業噪音水平。

Waste Management

Due to the growing wasteloads, Hong Kong faces a serious shortage of landfill space. Being a tertiary institution with about 5,000 staff and 17,000 students some of whom live on the campus, waste generation is a very difficult environmental problem to tackle in the CUHK. Wastes are generated daily by offices, laboratories, canteens, residences and student hostels. Tremendous effort is spent to remove and dispose of the refuse. To reduce the huge waste loading, the effective utilisation of resources, and 4 “R” Strategy of Reduce, Replace, Reuse and Recycle are adopted in the daily activities in the University. For instances, all staff are encouraged to adopt double-sided printing and reuse the single-side used paper. Email accounts are provided for all administrative staff and mass email will be used for internal communication to replace the notices and memos. Compared with 2000, the volume of refuse was reduced from 50,000 litres to 31,500 litres per day and the waste recover rate of papers, plastic bottles and aluminum cans were successfully increased by 6.83%, 11.0% and 51.43% respectively.

Apart from the daily recycling activities, CUHK has been constantly working with other environmental protection units and charity organizations to conduct Recycling Charity Activities, such as collecting used books, old clothes and forwarding them to the

charity organizations. In 2002 and 2003, Charity Old Clothes Collection was held in University Staff Quarters (USQ). It is highly appreciated that 382kg and 622kg of clothes were collected. Those collections were donated to the people in Mainland China. Besides, the student society, Green World, also organizes the Quarter Retreat Collection to collect the used items every summer vacation.

According to the World Vision, there are over one million children died of starvation daily all over the world. To reduce the meaningless food wastage and the canteen waste volume in the university, the University Canteen Committee and the canteen operators post the notice of "Less Rice, Thanks!" to spread the message of food value. The staff and students were encouraged to say "less rice" to the canteen staff if they did not need so much food. Part of the canteen wastes and food sludge are disposed by composting. In 2003, about 0.5m³ compost is generated and it will be used by the Landscape Section as fertilizers in gardening works. Besides, promotion programmes are conducted to encourage the staff and students to have meals in the canteen instead of take-away and to bring their own utensils instead by imposing charge on disposable utensils. The canteen operators also proactively phase out the foam lunch box by degradable lunch box.

University Staff Quarter Old Clothes Collection
大學職員宿舍舊衣收集處

To prevent contamination of the environment and protect the occupational health and safety of the researchers, the University Safety & Environment Office (USEO) manages the disposal of biological and chemical wastes generated on campus, all these wastes are properly stored and then collected by the licensed collectors. The waste disposal guidelines are prepared for the research staff and students of laboratories for dumping the chemical and biological wastes generated by the laboratory activities. Currently, the wastes are mainly classified into Inorganic Acid, Inorganic Alkaline, Non-halogenated Organic Wastes and Halogenated Organic Wastes. Moreover, radioactive waste store is managed by the competent person such as Radiation Officer of USEO for radioactive wastes to decay.

"Less Rice" Campaign
「少飯」運動

Say "No" to disposable tableware.
支持環保 少用即棄餐具

廢物處理

由於廢物與日俱增，香港面臨垃圾堆填區嚴重短缺的問題。中文大學共有五千名教職員和一萬七千名學生，其中部份在校內住宿，校園的廢物處理是一個非常棘手的問題。辦公室、實驗室、飯堂、教職員宿舍和學生宿舍，每天都產生大量廢物，要耗費龐大人力物力處理。大學校方為了減少廢物產量，倡導有效應用資源以及 4R 策略，即Reduce(減少)、 Replace(取代使用)、 Reuse(再用)、Recycle(循環)。例如鼓勵教職員用雙面紙張影印和利用單面廢紙。校方為所有行政部職員提供電郵信箱，用作校內通信，以減少大批印製通告、啟示等。和二〇〇〇年比較，二〇〇三年的廢物產量由每天50,000公升減少至31,500公升，而收集的廢紙、塑膠樽和鋁罐數量則分別增加了6.83% 、 11%以及51.43% 。

除了日常在校內推行廢物回收循環再用，中文大學並與其他環保單位和慈善機構合作，舉辦循環再用慈善活動，例如回收舊書和舊衣服，轉交慈善團體。二〇〇二年和二〇〇三年，舊衣回收慈善活動在大學教職員宿舍舉行，反應熱烈，分別收集了382公斤和622公斤舊衣服，捐贈給內地貧困地區人民。此外，學生團體「綠色天地」每年暑假也籌辦舊物回收活動。

根據「世界宣明會」的統計數字，全球每天有超過一百萬名兒童餓死。為減少浪費食物以及飯堂產生的廢物，大學膳食委員會和飯堂承辦商貼出了「唔該少飯！謝謝！」的啟示，以宣揚食物珍貴，如教職員和學生不須多飯，可請飯堂職員少盛，以免浪費。飯堂的剩餘飯菜，有些會經堆肥分解用作肥料。二〇〇三年，園藝組使用這類堆肥的數量，達0.5立方米。此外，校方舉辦推廣活動，鼓勵教職員和學生盡量在飯堂用膳，或自備器皿作外賣之用。即棄的飯盒，須額外收費。飯堂承辦商也選用可分解的飯盒取代發泡膠飯盒。

為防止環境污染和保障研究人員的職業健康和安全，大學安全及環境事務處會負責處理校園的生物及化學廢物。這類廢物會先妥善貯存，然後由持牌的回收商收集。校方為實驗室研究人員和學生擬定了生物及化學廢料棄置規則。目前，實驗室廢料主要分為以下各類：無機酸、無機鹼、有機廢料及鹵化有機廢料。輻射廢料則由安全及環境事務處輻射主任專責處理。

Quantity of Recyclables Recovered
可再用廢物的回收數量

	2000	2001	2002	2003
Waste Paper (Kg) 廢紙（公斤）	240,600	238,250	254,500	257,027
Plastic Bottles (Kg) 塑膠樽（公斤）	865	1,090	1,290	960
Aluminum Cans (Kg) 鋁罐（公斤）	595	670	849	901
Printer Cartridges (No.) 列印機炭粉盒（數目）	No Data 未有統計	357	427	277

Year 年份	Chemical Wastes (Kg) 化學廢物（公斤）	Biological Wastes (tons) 生物廢物（噸）
1998	19,244.0	No Data /未有統計
1999	15,852.5	No Data /未有統計
2000	24,241.1	17.0
2001	28,188.0	26.0
2002	34,661.0	14.0
2003	36,590.0	15.0

The compost generated by the Compositing is used by the Landscape Section.
堆製的肥料，可供園藝組使用。

Used masks were collected and disposed by the collector during SARS period.
非典型肺炎襲港期間，用過的口罩由收集商收集棄置。

The chemical wastes are stored in the licensed storage area according to their chemical properties. The wastes are then collected by the collectors and transported to the Chemical Wastes Treatment Centre for treatment and disposal.
實驗室的化學廢料，須按其化學成份分別貯存於獲當局認可的貯存地區，然後由回收商收集，運往化學廢料處理中心處理。

Resources Conservation

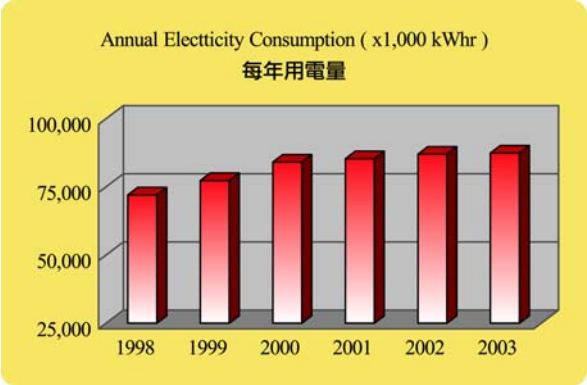
CUHK campus accommodates 38 blocks of staff residences and 27 blocks of student hostels, in addition to 52 blocks of academic and administrative buildings. The electrical consumption is recorded by a power tariff meter yielding a large bulk reading managed by the Estates Management Office (EMO). Apparently, with the continuous development of the University and the increasing number of staff and students, the electricity consumption also shows an increasing trend. To curb the increasing trend, the Energy Savings Task Force was established in April 1999 for the coordination and promotion of energy conservation. With the support of EMO, a series of programmes have been successfully planned and/or implemented:

On-peak Demand Controls

- the Power Factor Correction Programme was implemented to minimize energy wastage in 39 substations;
- 3.9% reduction (8616 kVA) in on-peak demand was achieved in 2003 main electrical bill.

Evaporative Water Cooling for Condensers

- Evaporative Water Curtain was installation to the chillers in HSH Engineering Building;
- 12.9% reduction (333,417kWh) from March to December 2003 was achieved.



Annual Electricity Consumption
每年用電量

Year 年份	(x 1,000kWhr)千瓦小時
1998	72,047
1999	77,327
2000	84,111
2001	85,338
2002	87,018
2003	87,404

Building Management System (BMS)

- BMS was adopted in six targeted buildings in 2003 such as:
  a) On/off scheduling of central chillers at night,
  b) Shut down of central chillers at cool weather,
  c) Temperature setpoint adjustment of the air conditioning,
  d) Controls of the fresh air intake,
  e) remote & real-time monitoring of the building status
- ~ 5% reduction of electricity consumption (1,740,000kWh) was achieved.

Building Energy Conservation Committee of HKIB

- Good housekeeping practices were adopted by Hong Kong Institute of Biotechnology staff such as zone controls for fan coils in communal areas and the controls problems in A/C services were rectified;
- 14% reduction (530,360 kWh) in benchmarking energy consumption rate was achieved.

Consumption of the Targeted Six Buildings in Year 2002 二〇〇二年六座選定樓宇的用電量	32,582,596kWh
Consumption of the Targeted Six Buildings in Year 2003 二〇〇三年六座選定樓宇的用電量	30,843,218 kWh
Energy Savings with BMS and other saving measures 節省用電量	1,739,378 kWh

Lighting Retrofit III & IV

- under the Lighting Retrofit Programme, the University replaced more than 14 thousand magnetic ballasts with electronic ballasts and modern T5 lighting system;
- this programme was extended to three student hostels in 2003 and motion sensors were installed for 10 buildings;
- 32W "2D" circular fluorescent luminaries were replaced by 14W T5 fluorescent luminaries at staircases.

Energy Management System

- Energy Policy and Guidelines were announcement in March 2003;
- the room temperature of some public areas are set to 24-25°C;
- eye catching materials such as reminder/stickers/ prompts are shown to enhance the awareness of energy conservation;
- buildings are designed with flexibility in windows for natural ventilation;
- automatic switch-off program is set on PC monitors;
- parts of the lifts are switched off after office hours;
- staff and students are encouraged to switch off lighting and air conditioner in offices, classrooms and laboratories after use;
- parts of the canteens are closed during non-busy hours / long vacations.

Energy Conscious Estates Operation

- Monthly Energy Performance Index was set for 9 buildings to keep track of the energy profile;
- departmental energy review with incentives scheme for implementation;
- Web-based Energy Survey was conducted in July 2003;
- Free Cooling was adopted in selected buildings during winter;
- the Building Automation System (BAS) have been installed for Academic Buildings to enable close central monitoring and control on the operation of building services;
- the Occupancy Sensors have been installed in classrooms and student hostels.

Energy Consumption Cost per Gross Floor Area
每樓面面積的用電量

With the implementation of these measures, the increasing trend in electricity consumption is curbed. The energy cost per unit area keeps decreasing in the past four financial years. Compared with other local university, the energy cost is the relatively lower in terms of per unit area and per unit rate. In 2003, it is honourable that CUHK was awarded with the Registration Certificate of the Hong Kong Energy Efficiency Registration Scheme for Buildings issued by the Electrical & Mechanical Services Department.

Comparison with Other University in HK
與其他本地大學的比較

From Jan to Dec 2003 二〇〇三年一至十二月	
1. Cost per unit area 每樓面面積的用電成本	
CUHK 中大	*$199 / G.F.A*
University A 大會A	*$214 / G.F.A*
University B 大會B	*$220 / G.F.A*
University C 大會C	*$221 / G.F.A*
2. Cost per unit rate 每千瓦電的成本	
CUHK 中大	*$0.7530 / kWh*
University A 大學A	*$0.7530 / kWh*
University B 大學B	*$0.7634 / kWh*
University C 大學C	*$0.8299 / kWh*

BG Charge of the CUHK campus

Financial Year	1999/2000	2000/2001	2001/2002	2002/2003
Total annual BG Energy Cost ($)	50,749,384	52,867,963	52,845,444	52,321,525
GFA for non-residential Areas (sq metre)	232,432	254,370	254,370	260,360
Energy cost per unit area ($/sq metre)	HK$218.34	HK$207.84	HK$207.75	HK$200.96

節約資源

香港中文大學校園有三十八幢教職員宿舍和二十七幢學生宿舍，另有五十二幢教學和行政大樓。物業管理處的電錶，紀錄全校電力耗用量；隨著大學不斷發展和教職員、學生人數不斷增加，電力耗用量也與日俱增。有見及此，校方於一九九九年四月成立能源節約工作組，以統籌和推廣節約能源。物業管理處協助統籌和舉辦了一系列節約能源計劃。

高峰時間需求管制

- 功率因數調整計劃在三十九個變電所實施，盡量減少能源消耗。
- 二〇〇三年主電費帳單的耗電量減少了3.9%（8,616千伏安）

採用水冷卻系統

- 何善衡工程大樓安裝了水冷卻系統。
- 二〇〇三年三至十二月，耗電量減少了12.9%（333,417千瓦小時）。

樓宇管理系統

- 二〇〇三年，六幢建築物實行樓宇管理系統：
  1）晚上控制其中央冷卻系統的開關；
  2）天氣涼快時關閉其中央冷卻系統；
  3）調整空調溫度的設定點；
  4）控制新鮮空氣流入量；及
  5）遙控及實時監察樓宇情況。
- 減省了5%耗電量（1,740,000千瓦小時）

香港生物科技研究院的樓宇能源節約委員會

- 香港生物科技研究院的職員實行有效率的管施，例如公共地方風機盤的區間控制、改善空調的管理等。
- 耗電量減少了14%（530,360千瓦小時）。

照明改進計劃第三、四期

- 過去數年，大學實行照明改進計劃，以電子鎮流器和先進的T5照明系統，取代了14,000多個磁性鎮流器。
- 上述計劃於二〇〇三年擴展至三個學生宿舍，此外有十幢建築物裝置了感應器，如覺察有物體移動，電燈才會開著。
- 梯間裝置14瓦特的T5螢光燈，取代32瓦特2D圓形螢光燈。

能源管理系統

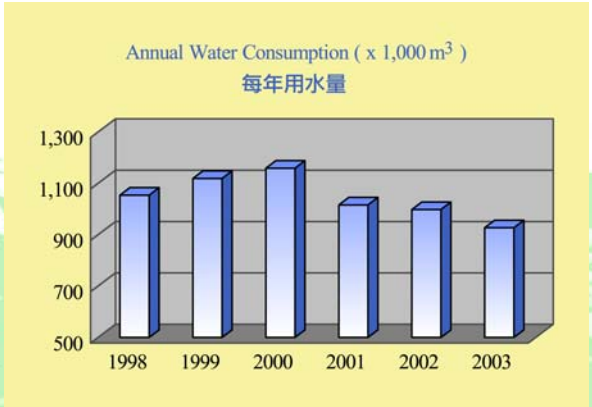
- 能源政策及守則於二〇〇三年三月公佈；
- 部份公眾地區的室內温度調至攝氏 24 至 25 度間；
- 張貼觸目的提示、派發小標貼等，加強節約能源意識；
- 建築物安裝可開關的窗戶，盡量利用自然空氣代替空調；
- 個人電腦螢幕安裝自動關閉的省電功能；
- 在非辦公時間，部份升降機停止操作；
- 提醒教職員和學生離開辦公室、課室和實驗室時，把電燈和冷氣機關掉；及
- 校內飯堂在非繁忙時間和長假期間局部停止服務。

能源節約的物業營運

- 為九幢建築物制定每月能源表現指數，以跟進其能源消耗情況；
- 檢討各學部門的能源消耗量，並制定鼓勵節約的計劃；
- 二〇〇三年七月舉辦了一項網上能源調查；
- 部份選定建築物的空調，冬天可以自由開關、調節。
- 教學大樓裝置建築物自動化系統，以便控制中心密切監控樓宇服務的運作；
- 課室和學生宿舍都裝置感應器，可顯示是否有人在內。

實行上述措施後，耗電量的升勢竭止。過去四個財政年度，以面積計算，校園的平均耗電費用還持續下降。與本港其他大學相比，校園平均耗電量也以中文大學為最低。在二〇〇三年，中文大學更榮獲香港機電工程署頒授香港能源效率註冊計劃的註冊證書。

Fresh water is essential to our daily activities such as drinking and washing. In 1999 and 2000, over 90,000m^3 water is consumed by CUHK per month and with a increasing trend. To minimise water consumption, water reduction is also a high priority task in CUHK. The automatic cut-off tap is being used in the washing room to prevent wastage of water. Posters and stickers are posted to remind users not to waste water during washing. Water reduction competition is also launched in the student hostels to encourage students to consume less water. Seminars and workshop about water conservation and energy conservation were regularly arranged to enhance the awareness of staff and students. Environmental Tips in the forms of labels and stickers were designed and published to remind the students and staff to live in the environmental friendly ways.



In 2001, 2002 and 2003, the monthly water consumption was reduced significantly, around 85,000m³ water was consumed by CUHK per month in average.

Besides, an automatic watergate has been installed in Wei Yuen Lake by the Estates Management Office to regulate the level of water storage. When flooding causes the water level to reach the warning mark, the watergate will open; similarly when the water drops to a certain level, the watergate will close. The lake provides up to 0.7 million litres of lake water for daily use at the University. This includes irrigation, cooling of air-conditioning systems, and flushing. The lake's capacity has been increased by 2.6 million litres in the last two years as a result of the deepening of the lake by 300 mm in the Chung Chi Lake Improvement Work.

Year	*Annual Water Consumption (x 1,000m³)*	*Percentage (%)*
1998	*1,054*	*---*
1999	*1,119*	*+ 6.17%*
2000	*1,159*	*+ 3.57%*
2001	*1,016*	*- 12.34%*
2002	*998*	*- 1.77%*
2003	*927*	*- 7.11%*

食水對日常生活非常重要，例如飲用和洗滌等。一九九九年和二〇〇〇年，香港中文大學每月耗水量都超過90,000立方米，耗水量並有上升趨勢。為了減少耗水量，節約用水也是中文大學要務之一。洗手間裝置自動停止的水龍頭，以防浪費食水；此外還印製海報和小標貼，提醒用者不要浪費食水。校方又舉辦節省用水比賽，並定期舉辦研討會和工作坊，加強教職員和學生節約能源、食水的意識，校方又設計和印製一些環保貼士便條，提醒學生和教職員在日常生活中重視環保。二〇〇一、二〇〇二、二〇〇三年，每月平均耗水量大幅減少至約85,000立方米。

未圓湖已建成自動排洪玻璃水閘，增加儲水量，供灌溉花草等，節省自來水和水費。大學一直利用天然山水灌溉花草，所以大部分灌溉用水是從未圓湖抽取。近年未圓湖經清理淤泥、改善水泵系統後，儲水量多了，每天的抽水量可達七十萬公升，除供灌溉外，亦可作冷氣機冷卻及沖廁之用。在旱季或少雨的日子，湖水不足供應。物業管理處於是挖深湖床和增高湖水水位，並加設可自動排洪的水閘。當洪水升至警戒線時，排洪閘門會自動打開；若水位降回適當位置，水閘會自動關上，以保持理想的存水量，可節省使用食水，並為大學節省水費開支。

The automatic watergate installed in Wei Yuen Lake is made of stainless steel and reinforced glass with four vents. The water level is adjusted by the sensor.
未圓湖水閘以不銹鋼及強化玻璃製成，有四個排洪位，利用感應器開關，可調節湖水水位高低。

ENVIRONMENTAL FRIENDLY CONSTRUCTION

The University is aware of the importance of the co-operation of contractors, sub-contractors and vendors in the maintenance of a pollution-free campus. Therefore, the Environmental Guideline which includes the legal requirements and the University's in-house rules by the University Safety & Environmental Office was prepared in 2002 to make understand the environmental requirements and the practicable measures to help them conduct the works in environmental friendly ways. This guideline will be attached in the tendering documents to suppliers and contractors for their compliance once they were appointed.

環保建設

大學明白要減少校園污染，必須獲得校園內承建商及供應商的合作，因此，大學安全及環境事務處於二〇〇二年制定了一套環保守則，包括法定的規例和大學訂立的規則，確保承建商等遵從環保原則，推行實際措施，保護環境。校方徵求供應商和承建商時，投標合約文件都附載這套環保守則。

COMMUNITY AWARENESS

Securing a long term solution to environmental problems through development of an improved environmental ethic within the community, the University promotes community environmental awareness through different campaigns, publicity, education and action programmes:

Weeklong Promotion of Campus Greening

The week from 14th to 21st March 2003 was designated as the Environmental Protection Week to enhance environmental awareness among students and staff of the University. The theme this year was 'Recycle and Sustain'. A wide range of activities were organized, including a tree planting ceremony, a green campus exhibition, a waste utilization design competition, a debate, an open forum entitled 'How to raise Hong Kong's recycling rate?', a flea market, a waste reduction workshop, and bird-watching. At the opening ceremony held at the Cultural Square on 14th March, different models of organic waste composers adopted by the University were put on display. The officiating guests were Dr. the Honourable Sarah Liao Sau-tung, Secretary for the Environment, Transport and Works of the HKSAR government, Mrs. Mei Ng, director of Friends of the Earth, Prof. Ambrose King, vice-chancellor of the University, Prof. Liu Pak-wai, pro-vice-chancellor, and Prof. Chan King-ming, chairman of the University Steering Committee on Environment.

Tree-planting Ceremony of the Environmental Protection Week 2003
二零零三年環保週植樹儀式

循環再造 生生不息

本年度環保週於三月十四至二十一日舉行，主題為「循環再造，生生不息」，節目包括植樹活動、廢物利用設計比賽及展覽、綠色校園展覽、辯論比賽、公開論壇、減廢工作坊、跳蚤市場及觀鳥活動等。開幕禮於三月十四日在文化廣場舉行，主禮嘉賓包括環境運輸及工務局局長廖秀冬博士、地球之友總幹事吳方笑薇女士、金耀基校長、副校長廖柏偉教授、環境事務督導委員會主席陳竟明教授，以及教職員和學生組織的代表。 減廢工作坊由物業管理處的同事主持，簡介中大現時的廢物問題、減少廢物的綱要計劃，以及廢物回收的措施。環境運輸及工務局代表及廢物回收專家則在公開論壇闡述提升香港的廢物回收率的方法。

Dr. Sarah Liao Sau-tung delivered a speech in the ceremony.
廖秀冬博士於開幕禮上致詞

喚起關注

大學舉行多種宣傳和教育活動，提高學生和教職員的環保意識，從長遠角度解決環保問題。

The Composer was activated by Dr. Sarah Liao Sau-tung and Prof. Ambrose King

Mrs. Mei Ng sat on the innovative massage chair made of waste film containers. Dr. Sarah Laio Sau-tung and Prof. Ambrose King were queued to try.
吳方笑薇女士一看見利用菲林筒製成的按摩椅，即忍不住躺上去一試，連在旁的金耀基校長、廖秀冬博士也躍躍欲試

Forum entitled 'How to raise the Waste Recycling Rate in Hong Kong?'
「如何提昇香港的廢物回收率？」論壇

Debate on 'The Government should charge the Waste Disposal Fee?'
「本港應徵收垃圾費」辯論比賽

Flea Market Selling the Old Items
售賣舊物品的跳蚤市場

The lecturers of HK Bird Watching Society introduced the bird species to the participants.
觀鳥會導師向參加者介紹鳥類的品種

The participants searched for birds during the Bird Watching Race.
各觀鳥賽參賽者正在聚精會神地搜尋雀鳥的蹤影

Orientation Day for Sixth Formers & 40th Walkathon

Over 26,000 students, their teachers and parents visited the University on its Orientation Day for Sixth Formers held on 27th September. The visitors were given detailed information about the undergraduate programmes on offer at the University as well as useful tips on admission. Environmental Promotion Boards were also set up on the Orientation Day for Sixth Formers to deliver the message of environmental protection to the secondary school students, teachers and other visitors. The visitors were also given a taste of the University's achievements in science, technology, education, and community service of the 40th anniversary fair.

預科生輔導日

本年預科生輔導日於九月二十七日舉行，吸引逾二萬六千名預科生、家長及中學教師參加。 當日各學院及成員書院全面開放，活動包括大型展覽、入學輔導、實驗室參觀及學科講座，以介紹大學各項本科課程、校園生活及設施，並輔導預科生選報合適的課程。大學特設綠色校園展覽攤位，向中學生、教師和其他公眾人士傳播環保訊息。大學舉辦了四十周年校慶博覽會，供參觀者了解大學在科研上的發明與成果，以及在教育與社會發展的貢獻。

The fish, coral and other rare species were shown to the public to make them awareness of the importance of marine environment.
這個名為「海洋生物全接觸」的攤位，展出魚、珊瑚和其他稀有海洋生物品種，說明海洋環境的重要

Orientation Day for Sixth Formers
預科生輔導日

The harvest of the organic farming were cooked and shared with the visitors
同學們烹調有機耕種的成果予參觀者品嚐

The pollution prevent and control facilities used in the campus were displayed.
綠色校園攤位展示中大校園防止和控制環境污染的設施

CONTRIBUTION TO THE COMMUNITY

Being the world famous tertiary educational institute, CUHK clearly knows that both research and teaching are important and critical to help protecting our environment and achieving the sustainable development. CUHK aims to assist in the preservation, dissemination, communication and increase of environmental knowledge by featuring the environmental and conservation issues topics widely in the university's research and curricula. Nowadays, the University provides regular courses related to the environmental protection in different levels. To instill in students a sense of environmental responsibility and principles of sustainability, environmental courses are designated as required courses in the General Education Programmes. A wide range of specialised courses BSc, MSc, MPhil and PhD are offered by the Department of Geography and the Environmental Science Programme under the Faculty of Science. Besides, to stimulate the development of environmental culture and thereby assist in promoting its social value, some elective subjects related to Ecology, Conservation, Economics of Social & Environmental Issues are run to educate the undergraduate and postgraduate students with the knowledge of the natural environment.

The University has also established different centres and laboratories to provide faculty members with financial support and other facilities for environmental research.

Course 課程	Faculty 學院	No. of Students 學生人數
BSc in Environmental Science 環境科學理學士	Science 理學院	89
MPhil in Environmental Science 環境科學哲學碩士	Science 理學院	7
PhD in Environmental Science 環境科學哲學博士	Science 理學院	2
BSocSc in Geography & Resource Management 地理及資源管理社學科學學士	Social Science 社會科學院	163
MPhil in Geography & Resource Management 地理及資源管理哲學碩士	Social Science 社會科學院	17
PhD in Geography & Resource Management 地理及資源管理哲學博士	Social Science 社會科學院	12
Master of Science in Geoinformation Science 地理資訊理學碩士	Social Science 社會科學院	---
Postgraduate Diploma in Applied Geoinformatics 應用地理資訊研究生文憑	Social Science 社會科學院	4

社會貢獻

香港中文大學為世界知名學府，明白科研與教學對環保發展非常重要。大學在科研與課程上都著重環保課題，以期傳揚和增進環保知識。目前，大學設有不同程度的環保課程，向學生灌輸環保責任感和持續發展的原則。環保課程是通識教育課程的必修科，此外，理學院提供環境科學課程，地理學系也提供專業課程，包括本科、理學碩士、哲學碩士和哲學博士課程。大學還為本

科生和研究生提供一些自然環境知識選修課程，講述生態、能源節約、經濟、社會及環境等問題，以孕育和促進社會上的環保文化和價值觀。

大學又設立了不同的科研中心和實驗室，為教研人員提供環保研究的設施和財政支援。

CEPRM

The Centre for Environmental Policy and Resources Management (formerly known as the Centre for Environmental Studies) facilitates and coordinates collaborative research in environmental science across departmental boundaries and fosters a multidisciplinary approach to the evaluation and analysis of environmental and resource issues. It strikes a balance between sustainable development and environmental protection by fostering sound policy-making based on reliable scientific information and understanding of the needs of human beings and nature and serves the community by being a source of information and a collaborative base of research, creative problem-solving and policy development for professionals, decision-makers and the public.

Experimental Station Opens on Campus to Study Physical Geography

Hong Kong Geography Day, organized jointly by the CUHK Department of Geography and Resource Management and the Hong Kong Geographical Association on campus on 8th November 2003, attracted about 600 scholars, professionals, and secondary school teachers and students. Themed 'Hong Kong as a World City: Global Action and Local Action', the day comprised paper presentation sessions, exhibition of geography departments of universities and related organizations, and field trips.

Hong Kong Geography Day, held once every two years, is a major event of the local geography community. On the same day, the Department of Geography and Resource Management also held an opening ceremony for its Physical Geography Experimental Station, the first integrated geographical and environmental experimental station in Hong Kong. The newly completed facility is a multi-function and multi-purpose station equipped with state-of-the-art instruments for data collection and experimental work. Its four major components are: a greenhouse, a rainfall and soil erosion simulation system, an air quality monitoring station, and an automatic weather station. The facility is expected to contribute significantly to teaching, research, data sharing, and science education.

環境政策及資源管理研究中心

環境政策及資源管理研究中心統籌不同學系的環保研究工作，務求以跨學科方式評估和分析環保與資源問題。大學根據實質的科研資訊，以及對人類需求和自然的了解，為社會在持續發展與環境保護之間求取平衡；並以創新的精神，為專業人士、決策者和社會大眾提供環保資訊，研究解決問題的辦法和政策發展。

香港地理日暨自然地理實驗站揭幕

「香港地理日」是香港地理學界兩年一度的盛事，去年由本校地理與資源管理學系和香港地理

學會在中大校園合辦，主題為「國際都會香港：環球視野與本土行動」，約有六百名學者、專業人士和中學師生參加。大會更邀請中國地理學會和廣東地理學會的理事長以及廣州中山大學的研究生代表出席，加強香港與內地的地理學術交流和合作。

活動內容包括專題研討會、大學地理系和有關專業團體的展覽介紹，以及香港地理考察等。

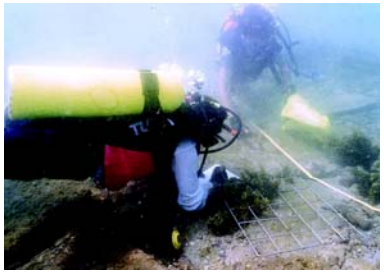
地理與資源管理學系同日舉行「自然地理實驗站」揭幕典禮。新落成的多功能實驗站由温室，降雨和水土流失模擬系統，空氣素質監察站，以及自動氣象站組成，設有先進的儀器，是香港首個地理和環境研究的綜合實驗站，除了促進科研和教學外，亦會通過數據共用和科普教育等多種形式服務社會。

Simon F.S. Li Marine Science Laboratory

The Marine Science Laboratory was established under the Department of Biology as a research centre for advanced studies in marine science. Current research is focused on the physiology, biochemistry and molecular biology of marine animals in related to fisheries and mariculture. And the other major research area is the biology and ecology of planktonic and coral reef organisms in the waters of HK and southern China .

李福善海洋科學實驗室

生物學系成立海洋科學實驗室，以供先進的海洋科學研究，目前的研究焦點為漁業與海洋養殖業之海洋動物生理學、生物化學及份子生物學。另一主要研究範疇，是香港與華南海域浮游生物和珊瑚礁有機體的生物學與生態學。



Joint Laboratory for Geoinformation Scence

Besides, the Joint Laboratory for Geoinformation Science of the University and the Chinese Academy of Science used the Aerial Infra-Red Remote Sensing Technique to identify the vegetation growth, water quality and land use pattern and to investigate the environment of Hong Kong.

International Discussion on Virtual Geographic Environments

Some 60 scholars from across the world attended 20 paper presentations at the International Advanced Workshop on Virtual Geographic Environments and Geocollaboration, hosted by the Joint Laboratory for Geoinformation Science (JLGIS) of the University on 15th and 16th December 2003. The workshop was sponsored by the K.C. Wong Education Foundation, Sze Cheong Investment Co. Ltd., the Hong Kong Society for Photogrammetry and Remote Sensing, the International Association of Chinese Professionals in Geographic Information Science, and the IEEE Hong Kong Section Computer Chapter. Topics addressed included research and applications in virtual geographic environments, spatial cognition, and advanced virtual reconstruction methods.

The co-chairmen of the two-day workshop were Prof. Lin Hui of JLGIS and Prof. Michael Batty of University College London. The participants were renowned scholars from the US, China, UK, Russia, and Germany. Pro-vice-chancellor Prof. Jack Cheng delivered the welcoming address at the opening ceremony.

地球訊息科學聯合實驗室

中大與中國科學院合辦的地球訊息科學聯合實驗室，利用航空紅內線遙感技術，研究香港的蔬菜生長、水質以及土地應用模式，並進行香港環境調查。

虛擬地理環境及地理協同會議

地球信息科學聯合實驗室十二月十五及十六日主辦國際虛擬地理環境及地理協同研討會，吸引六十多名來自美國、中國內地、俄羅斯及德國的專家學者參加，共發表論文二十篇，涵蓋虛擬地理環境及其應用、空間認知、先進虛擬重建方法等。

研討會的共同主席為地球信息科學聯合實驗室主任林珲教授及英國倫敦大學的Prof. Michael Batty。研討會的贊助機構為王寬誠教育基金會、士昌置業有限公司、香港攝影測量與遙感學會、中國海外地理信息科學協會及IEEE香港電腦分會。

虛擬地理環境的應用範圍包括城市規劃環境影響評估、災害及危機管理、山林火災救援、水災預報及知識社群。

International Discussion on Virtual Geographic Environments
虛擬地理環境國際研討會與會人士合影。

亞洲英雄

威爾斯親王醫院的前線醫護人員，為了照顧非典型肺炎病人，奮不顧身，自稱「骯髒部隊」。這支以中大內科及藥物治療學系主任沈祖堯教授為首的部隊，獲二零零二年四月廿八日出版的《時代雜誌》，選為本年度亞洲英雄，與其他英雄人物同列榜上。《時代雜誌》指出，這些英雄人物「令我們再次意會到，崇高的精神在惡劣不堪的環境下，仍然可以發出光和熱。」

非典型肺炎在香港爆發之初，威爾斯親王醫院首當其衝。面對嚴峻的疫情，香港中文大學及威爾斯親王醫院迅速實施一系列控制傳染病措施。措施實行後，醫護人員受感染的比率大幅遞減。

Asian Heroes

They call themselves the "Dirty Team", the group of doctors and nurses caring for SARS patients at the Prince of Wales Hospital. Time Magazine calls them heroes. This team, headed by Prof. Joseph Sung of the CUHK Department of Medicine and Therapeutics, was named in a special April issue of Time Magazine as Asian heroes, among other "Asians famous and unknown who reminded us what human spirit can achieve even in the direct of situations".

In response to the major outbreak of SARS at the Prince of Wales Hospital (PWH), medical staff from CUHK immediately developed a series of infection control measures. Following the implementation of these measures, the rate of infection among medical workers was dramatically reduced by more than 90%.

「衛生約章」提升本港衛生水平

為凝聚廣大市民及多個業界，共同提升本港衛生水平，中大公共衛生學院健康教育及促進健康中心應「心連心 — 全城抗炎大行動」之邀，制定一套針對十二個社群和業界需要的「衛生約章」，並擔任約章的登記機構，以推動全港市民注重個人、家居及社區的清潔衛生，貫徹良好的衛生習慣。

Hygiene Charter for Hong Kong

At the invitation of Operation UNITE, the Centre for Health Education and Health Promotion of the School of Public Health has drawn up hygiene charters for different sectors in Hong Kong, with an aim to promote concepts and practices of hygiene at the personal, family, and community levels.

中大推動「健康校園齊抗炎」

全港學校齊響應為了協助中小學及幼稚園的師生及家長在復課前作好準備，對抗非典型肺炎，中文大學舉辦「健康校園齊抗炎」健康教育活動，針對學校環境，製作一套錄像及小冊子介紹預防非典型肺炎的方法，又為學校提供建設健康校園知識。有關錄像及小冊子已分發予各中小學及幼稚園，所有內容亦已上網，惠及逾百萬名中小學生。中大並為過千名中小學校長及教師舉辦多次校園健康講座。

"Schools Against SARS" campaign

An education and public health campaign was launched in April to better equip students, teachers and parents for the resumption of classes and to help them combat SARS in the school setting. VCDs and pamphlets have been produced and distributed to all secondary and primary schools and kindergartens. Briefings have also been organized for over 1,000 principals and teachers.

支援安老院舍

社會工作學系先後與公共衛生學院健康教育及促進健康中心和中醫學院合作，在五月三及十日舉辦講座，為三百多名安老院舍前線人員提供院舍對抗非典型肺炎的相關資訊。

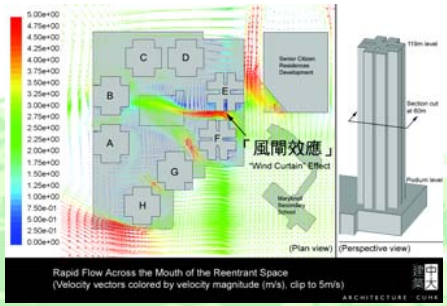
Helping homes for the elderly

Seminars to address challenges faced by the elderly homes and their frontline workers were held on 3 and 10 May, attracting some 300 participants. The functions were organized by the Department of Social Work in collaboration with the Centre for Health Education and Health Promotion and the School of Chinese Medicine.

中大建築學系專家建議裝定風板消除淘大花園「風閘效應」

非典型肺炎疫潮在淘大花園爆發，迅速傳染。香港中文大學建築學系對淘大花園的環境，尤其是氣流情況進行了研究。結果顯示，淘大花園出現「風閘效應」，加速病毒上下傳播的機會。

小組利用流體動力學的方法，計算出E、F兩座住宅的相對位置，加速了兩座建築物間的空氣流動，快速的流形成一度「風閘」，封鎖著天井的出口處，減慢天井內空氣的橫向流動。建築學系亦提供了一個既簡單而有效的解決方法：選擇適當位置，安裝定風板，消除風閘效應的影響，改善天井通風。這個方法加上改善排污系統，特有效改善淘大花園的情況。



CUHK experts suggested ways to abate Amoy Garden "Wind Curtain" effect

CUHK's Department of Architecture has conducted a study of the entire Amoy Garden complex where massive SARS infections have occurred, and has concluded that a major contributing factor is the Wind Curtain effect.

A detailed computational fluid dynamic (CFD) study has found that the Wind Curtain effect sealed off the light well area in Block E and F, causing the horizontal air flow in the light well to become nearly stagnant, thereby any droplets laden with viruses that may have been released into the area would likely remain there and spread vertically and contaminate other floors. Based on the findings of the study, the Department has also proposed a simple yet effective way of solving the problem: fitting simple panels in the light wells. The addition of a simple panel (spoilers at a suitable position) in the reentrant area would disrupt the wind curtain sufficiently so that this effect would no longer be operative. This would provide a simple retro-fitting solution (in addition to the rectification of sewage problems) to many buildings.

This environmental report represents The Chinese University' s commitment to build a green campus and outlines the University's plans to seek continual improvement. We welcome your comments and suggestions on how the University can better achieve its objectives.

Please contact: ***University Safety & Environment Office***
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Environmental Hotline: 2609 8666
For more information, visit our homepage at: http://www.cuhk.edu.hk/useo/

本報告代表了中文大學對建立一個綠色校園的承諾，對持續改善環境質素的要求。
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Editor / 編輯 : Jack Yung
Graphic Designer / 版面設計 :
China Gateway International Limited 中凱國際有限公司
Printer / 承印 : China Gateway International Limited 中凱國際有限公司

This report is printed on recycled paper. / 本報告以環保紙印刷。