



Sustainable Campus

可持續校園

二零一三年春 Spring 2013



毗鄰港鐵大學站的綜合教學大樓，前臨吐露港的一面全劃為教室。「讓學生向着最美的方向，可以有更多靈感。」建築學院院長何培斌教授說。

An Integrated Teaching Building of the School of Architecture, which is located next to the University MTR Station, reserves the sea view to young learners. 'Let the students enjoy the most beautiful view. They will get more inspiration,' said Prof. Ho Puay-peng, director, School of Architecture.

新世代建築師的搖籃 AIT Building: A Cradle of Architectural Talent

位於車站路旁的綜合教學大樓，於2012年秋落成，是中文大學校園最年輕的建築物之一，是建築學院教學與研究的大本營。如果一座建築可透過其外貌和結構傳達任何理念與情感的話，這座外觀明淨、內部建設符合環保原則的大樓，正體現了建築學院師生建設美好環境的願景。

建築學院院長何培斌教授說它的特色有三：「首先，為人服務，凝聚人，令裏面的人覺得舒適；其次，容納活動，更把活動的氣氛昇華；第三，肩負起教學作用。」

何教授進一步解釋：「學生可以見到我們是怎樣處理材料、處理空間、處理光線、處理人的活動，我們會利用這個建築作為教材，讓學生研究不同的概念。」

為莘莘學子締造理想的學習環境，是為人師表的心願，何教授也不例外：「學習環境必須不覺侷促或受掣肘，這樣，人的思想才能夠開闊，這是最要緊的。我覺得新大樓的環境可以令學生的思想更加無拘無束。」地靈自然入傑，希望在此茁長的年輕建築師在未來能施展抱負，以創見為建設綠色社區作出貢獻。

On Station Road, there is a very young building with a curious name, and smart, sleek but environmentally friendly interiors. It's called An Integrated Teaching Building (AIT Building) and it is home to the University's School of Architecture.

Completed in autumn 2012, the AIT Building is the hub of teaching, learning and research for the school. Prof. **Ho Puay-peng**, director of the school, said the building is special for three reasons. 'First of all, it is designed to serve, to gather, and to make people inside feel at ease. Secondly, it accommodates various kinds of events and helps to enhance their atmosphere. Thirdly, it is a teaching building.'

'Students can see how we manage building materials, how we approach light and space, and handle human activity. We can use this building as teaching material, letting students study its different aspects,' Professor Ho explained.

Every teacher knows an inspiring environment is important for learning. Professor Ho shares

that view. 'A learning environment must be comfortable and unrestricting. This is important as it is conducive to broadening the mind. I believe the AIT Building surely can help to liberate students' thinking.' A blessed place produces talented people, as the saying goes. Alongside with excellent faculty, the AIT Building is all set to nurture capable and environmentally-conscious architects in the decades to come.



綜合教學大樓模型
Model of AIT Building

大樓採用開放式設計，歡迎各界參觀。有興趣到此一遊的師生校友，不妨參考何教授以下的導賞，感受每個角落的特色。

Embracing an open house design, the AIT Building has received many visitors since its opening.

Now let us go on a 'tour' curated by Professor Ho.



大樓的心臟—中庭

成功的建築應該有一個凝聚各樓層的使用者的焦點。因此，大樓的中庭，甫進大門口便會見到。不論你身處哪個位置，圖書館、設計工作室、展覽室、課室還是教職員辦公室，目光和注意力都會落在中庭。中庭儼如大樓的心臟，雖然這個心臟是虛的，但它起着貫串整體的作用。

中庭開放式的設計，可以容納各類型活動，規模小的如學生評圖、研討和開會，較大型的有2012年開學禮、建築學院二十周年晚會、國際會議和大型展覽等。中庭舉辦的活動愈多，凝聚力便會愈強。除了中央寬廣的空間，四周有樓梯、走廊和天橋穿插，人在上面信步走過，展示出流動的生命力。不少學生都愛在這裏留連，與朋友聊聊天、喝喝咖啡。

全天候學習空間

為了善用圖書館藏，並讓學生有清靜的地方溫習，建築圖書館二十四小時開放。每晚最少有五十名學生進館，以建築學院近二百七十名學生而言，數字已經不錯，通宵開放期間不設管理員，但學生均自律用功。館內電燈在無人使用時會自動關閉，節省電力。

唸建築的學生往往要不眠不休地趕功課，故此，設計工作室亦是全日開放，充分照顧他們的需要。每間均附設小型玻璃房工作間，木工機器和激光切割機等一應俱全，這樣的設置在其他學校很少有。學生由繪圖到製作模型都可以在一處地方集中完成，除了提升學習效益，亦鼓勵他們多製作模型。

用料平實簡樸

大樓牆身是一片灰色的清水混凝土，許多人看了會疑惑地問：「是否尚未完工？」這其實是一種手法，讓建築材料如混凝土、木板、鋼材等等，以原有顏色如實展現。若是配搭得宜，原色是最好的。

大樓採用簡單建材，不需要從遠方採購，減省了運費和燃料，牆身不需髹漆，內部裝修以簡單為主，如院長和學院辦公室的家具，以原木夾板架疊而成，貫徹簡約風格。大樓的建築開支跟興建一間標準中學相若，符合經濟原則。

糅合環保設計

新大樓致力達到本地環保建築標準——綠建築評 (BEAM Plus) 鉑金級別認證所釐定的要求，它為可持續設計概念樹立了一個範式，例如中庭的設置是為了引入自然風，當四周窗戶打開時便毋須開冷氣。日光從天窗透進來，可以減少開燈。天窗採用隔熱金屬屋面和節能雙層鍍膜玻璃，玻璃上的一個個黑點，其實是太陽能電池 (BIPV)，現可為頂層的浴室供應暖水，其發電潛力仍需進一步測試。

中庭上方的淺綠色研討室，引入了全港唯一的冷樑，它較一般使用壓縮機的空調設施省電。室內其他地方會用送風機，取代冷氣機。此外，在天台花園試耕，種植攀生植物綠化牆身等項目正陸續開展，務求實踐中大作為綠色大學的宗旨。



何培斌教授
Prof. Ho Puay-peng

Atrium—Heart of AIT Building

A successful building design must have a focus for users on different floors. The atrium, which can be seen from the entrance, serves this purpose. Whether you are in the library, studio, exhibition area, classroom or staff offices, your attention will naturally be drawn to the atrium. It's the heart of the building which though hollow connects up the different parts of the building.

The open design of the atrium aims at flexibly accommodating different kinds of activities, e.g., student presentations, seminars and discussions, as well as more sizeable events such as the inauguration of the 2012 academic year, the 20th anniversary gala dinner of the school, international conferences and large-scale exhibitions. The more activities are held, the stronger the bonding it will foster. Up and around the huge space of the atrium are staircases, corridors and bridges used by teachers and students who lend them much vitality. Students like to hang out at the atrium, having a chat over coffee.

Round-the-Clock Facility

The architecture library is open 24 hours daily to make full use of library resources and provide an



中庭
Atrium



天台花園
Roof garden

ideal venue for students to study at night. According to figures, some 50 students use the library every night. The school currently has only 270 students. No librarian is on overnight shift but students are disciplined and well behaved. The library's lights have motion sensors and when there's no movement around, the lights will go off to save electricity.

Architecture students often work overnight on their projects. To meet their needs, the studios are also open 24 hours. Next to each, there's a small workshop with glass walls equipped with a full set of wood work machinery and laser cutter. This rare arrangement among local tertiary institutions allows students to draw and construct models in the same place. These facilities help to boost learning outcomes and encourage students to devote more time to model-making.

Plain and Simple

The building's fair-faced concrete walls have led some visitors to ask if the AIT Building is still under construction. It isn't and it looks this way because the school prefers to preserve the original tones of the concrete, plywood and steel. If matched well, natural colours are the most beautiful.

The building materials are simple and easily available, which means lower transportation and energy costs. The walls need no paint and simplicity rules the interior design. For example, the furniture in the director and staff offices are made of stacks of raw plywood which is in line with the minimalist



Photos: Arch Design Architects Ltd., School of Architecture
相片由雅緻建築設計有限公司和建築學院提供

design. The cost of the AIT Building is equivalent to a standard secondary school. It is economical yet beautiful.

Green Design

The AIT Building is also a model of environmental protection. It is the school's goal to achieve the highest local environmental building standards, i.e., BEAM Plus Platinum certification, with this building. The atrium is created to bring in fresh air. When the windows are open, there is no need to turn on air-conditioning. There is skylight which renders artificial lighting unnecessary in most places during the day. The skylight is built with metal roofing with heat insulation and low-e double glazing panel, and the black dots on the glass are building integrated photovoltaic (BIPV) cells which currently supply electricity to water heaters in bathrooms on the top floor.

At the top of the atrium is a small room in light green which features the only chilled beam in Hong Kong. Unlike common air-conditioners which are driven by compressors, the chilled beam has none, so it can save a lot of energy. In other places of the building, ventilators are used to replace air-conditioners. Besides, experimental farming is taking place on the green roof, and a vertical greening project is underway. With the concerted effort of all, CUHK is committed to fulfilling its mission of building an eco-friendly university. ✨



委任能源監察員

Appointment of Energy Wardens



來自八所學院、八十多個學系和部門的一百九十二名代表獲大學委任為能源監察員，職責是在物業管理處統籌下，協助所屬學系和部門主管推行節能措施，並與不同單位協作，節約用電。2月27日的委任儀式上，協理副校長馮通教授（右四）呼籲大學同仁積極響應，為達到中期及長期減電目標共同努力，沈祖堯校長（左五）則把委任狀逐一頒授予能源監察員。

能源監察員培訓講座同日展開，由中大物業管理處、資訊科技服務處的代表連同其他嘉賓講者主講，與會者踴躍分享。

大學正計劃協同校內二十二幢大樓推行節能先導計劃，為期三年，名單包括校內十幢耗電量最高的樓宇及不同功能的樓宇，涵蓋所有學院及主要行政單位。而整批二十二幢樓宇的用電量佔去大學電費總開支六成以上，日後，每幢大廈將成立節能工作小組，能源監察員將聯同物業管理處代表，巡查大廈內公用地方和大廈用家專屬區域，在不影響學系和部門運作的情況下找出可省電之處，建議節能方案，並致力提高共事者的環保意識，避免工作間出現浪費電源的情況。

The University appointed 192 staff from eight Faculties and some 80 departments/offices as energy wardens. Supported by the Estates Management Office (EMO), energy wardens are responsible for assisting department/unit heads to implement energy conservation measures and collaborating with various units to reduce the use of electricity. At the launch ceremony on 27 February, Prof. **Fung Tung** (4th right), Associate Pro-Vice-Chancellor, appealed to the CUHK community to work hard towards achieving both the intermediate and long-term goals in energy conservation. Prof. **Joseph J.Y. Sung** (5th left), Vice-Chancellor, presented the appointment certificates to the energy wardens.

On the same day, talks on energy-saving tips were given by EMO, the Information Technology Services Centre and other guest speakers as part of the training for Energy Wardens.

At the same time, the University plans to launch a three-year pilot Energy Conservation Plan targeting 22 buildings. These buildings include the top 10 buildings with the highest energy consumption and buildings of different functions and usages covering all eight Faculties and major administration units. Together these 22 buildings represent over 60% of the University's total electricity usage. A building energy conservation working group will be set up in each building, and their energy wardens will work with EMO staff to carry out energy audits in the communal areas and user areas, aiming to devising a viable energy-saving plan for the building. They will identify practical energy-saving opportunities provided that they will not unduly affect the operation of the department, and suggest possible means to raise awareness among co-workers to minimize wastage in the workplace. ✨



和聲書院南座校舍啟用 Lee Woo Sing College South Block Completed

坐落士林路、可容納三百名宿生的和聲書院南座校舍已於2013年1月啟用。校舍依山而建，前臨吐露港，遠眺八仙嶺，景色優美。書院其他配套設施將於今年夏季陸續投入服務，所有設施建成後可服務多至一千二百人，包括六百名宿生及不多於六百名走讀生。

和聲書院着重綠色教育，建設書院時加入環保元素，包括全港首個宿舍智能電力讀數系統、高效能銅鋁鎵硒 (CIGS) 太陽能發電系統，以及較一般LED (發光二極管) 省電百分之七十五的全反LED照明系統等。



和聲書院南座(右)和北座校舍
Lee Woo Sing College South Block (right) and North Block

宿舍智能電力讀數系統
Hostel digital smart meter

Located at Residence Road, Lee Woo Sing College South Block which provides 300 hostel places was completed in January 2013. Built along the contours of the hill, the College campus enjoys the beautiful view of the Tolo Harbour and Pat Sin Leng. Following the opening of the hostel area, other affiliated facilities are expected to be in place this summer. When in full operation, the College can accommodate 1,200 students, including 600 residential students and 600 non-residential students.

The College aims at promoting green living and to this end, the building has adopted many environmentally friendly designs, including three green measures that are the first in Hong Kong's tertiary institutions: a hostel digital smart meter, a high-efficiency CIGS solar energy generation system, and LED lighting with plasmonic crystals. ✨

新植櫻花樹初綻 Cherry Blossoms on Campus

2012年初，大學為紀念日本研究學系成立二十周年，於新亞書院栽種了二十棵河津櫻，是日本最優良的櫻花樹品種之一。今年立春，知行樓外數棵櫻花樹綻放初蕾，吸引師生校友駐足留影。



In early 2012, 20 cherry trees were planted at New Asia College to commemorate the 20th anniversary of the Department of Japanese Studies. They were the Japanese Flowering Cherry, which is one of the best species from Japan. Recently, the trees outside Chih Hsing Hall are in bloom, indicating the arrival of spring, and they have become the backdrop of many photos taken by members of the CUHK community. ✨

《可持續發展報告》出版 Sustainability Report Released

由校園規劃及可持續發展處及校園環境委員會編製的《2011年可持續發展報告》已上載網站，歡迎閱覽。

www.cuhk.edu.hk/cce/extra/reports/sustainability2011.pdf

Prepared by Campus Planning and Sustainability Office and the Committee on Campus Environment, the *Sustainability Report 2011* was released. Please browse at www.cuhk.edu.hk/cce/extra/reports/sustainability2011.pdf. ✨



單車徑開通 New Cycling Track

為配合校園發展計劃，加強交通聯繫及改善汽車流量，營造安步當車的環境，大學於校內修建了一條長一點五公里的單車徑，起點是港鐵大學站，途經夏鼎基運動場、賽馬會研究生宿舍、士林路教職員宿舍、興建中的敬文書院，終點是校園北部39區。大學站北出口、建築學院綜合教學大樓旁及39區內均設有單車停泊區，現已啟用。

單車徑沿鐵路興建，大部分路段與汽車道路分隔，兩旁樹木扶疏。以單車代步能減少汽車廢氣排放，又可強身健體，是校園內理想的短途交通工具。於單車停泊處轉乘校巴、地鐵和公共巴士等，亦方便快捷。

A 1.5 km bicycle track was completed recently on campus to facilitate vehicular flow and promote the culture of walking, as endorsed in the Campus Master Plan. The bicycle track begins at the University MTR Station, which links Sir Philip Haddon-Cave Sports Field, Jockey Club Postgraduate Hall, Staff Quarters at Residence Road, C.W. Chu College (under construction), and ends at Area 39. Parking space is located at the north exit of the University MTR Station, outside the AIT Building and in Area 39.

Built along the railway tracks, the bicycle track is separated from motor lanes in most of its sections, with trees aplenty on both sides. Cycling is good for one's health and bicycles are pollution free. Parking spaces for bikes are conveniently located for those who need to use public transportation, like shuttle bus, MTR and public bus. ✨



建築學院綜合教學大樓旁的單車停泊處
Parking space outside AIT Building

單車徑路線圖 Cycling route on CUHK campus

