

An Urban Oasis of Greenery and Learning

Imagine if you will the University of Hong Kong as garden. This is what Professor Jim Chi-yung 詹志勇 (BA 1975), Chair Professor of Geography (Soil, Tree and Environmental Science), meditates upon; that the campus will soon be transformed into a nature-in-city exemplar of a garden with trees, shrubs and blooming flowers of variegated colours throughout the seasons.

“HK is excessively ‘concreted’. There needs to be a return to more greenery, paved areas need to be reverted to lawn or vegetated areas,” he said. But, this is a reflection of the fact that the city is a high-density metropolis and the general mentality that each and every inch of space should be utilised for maximum benefit is paramount.

But the Chair Professor also tells of student gripes about there being ‘no campus feel’ at HKU and that there are not enough green spaces. Only the Lily Pond, and some rather inaccessible slopes, constitutes green space, but over the years this limited oasis has been shrinking in size, while most of the slopes are too steep for any practical use.

One of Professor Jim’s first sustainability initiatives was the ‘green roof’, which he first tested in the middle of 2006 on the top of the Runme Shaw Building. He found that a 10 centimetre layer, consisting of waterproofing, drainage, water storage, soil and vegetation, could result in substantial reduction in maximum temperature by 18°C and suppression of daily temperature fluctuation to less than 4°C on a summer day.

Already, in Hong Kong, some new buildings are now being designed with green roofs in mind, while many older buildings can be retro-fitted.

“Rooftop greening has been commonly applied in such places as Europe, North America and Japan but is still relatively new to Hong Kong. Planting vegetation on a rooftop will not only reduce rooftop temperature significantly and help to conserve energy, it will also bring aesthetic and ecological benefits to the surroundings,” says Professor Jim.

His proposal to green the roof of the Library’s New Wing will soon be realised. The funding has already been secured and work will begin soon. Part of it will be accessible to students and staff and is likely to be covered with lawns, flowering shrubs and other attractive herbaceous vegetation.

The library is well-suited because of its lack of ‘clutter’, such as air conditioners, water tanks, piping and ducting, on the roof. Besides the multiple environmental benefits, it will bring economic dividends, not the least of which are heat insulation and cooling capability, resulting in lower internal ambient temperature which translates into lower energy costs. This is especially important in the case of the library because of its extended operating hours and notable electricity consumption for air-conditioning, he says.

He plans to monitor energy use levels before the start of construction and after the installation of the green roof to compare the difference. The added benefit is that the new green roof “will provide a ‘visual amenity’,” says the geography professor because a number of occupants of surrounding buildings will benefit from the soothing and delightful green vista.



One of the design-concepts already voiced by Professor Jim for the Centennial Campus is that of the seamless integration of ‘green and blue’. This is the combination of vegetation and water and how to marry the two harmoniously campus-wide so that it can be transformed into a blissful and serene garden ambience.



One of the various machines used by Professor Jim Chi-yung to monitor temperature fluctuations.

This he would like to see through the planting of many new, flowering plants and each blooming in a different season so that the campus always appears awash in colour. He also expects to see more green roofs and vertical greening.

In the courtyards of the Centennial Campus, he hopes to see more lawns, flowers and plants that give off a pleasing

fragrance. Other amenities Professor Jim would like to see incorporated are more ‘water features.’ Presently, only the Lily Pond, which has become a Hong Kong feature with its lotus and water lily plants, offers respite. But he would also like to see streams with running water stocked with fish, accompanied by fountains and emulated natural waterfalls.

Presently, the campus is already planted with flowering shrubs such as Azaleas, Camellias, Common Crape Myrtle, Ixora and Kwai-Fah.

“Despite the small campus area, we are endowed with an interesting array of ornamental trees planted mainly by the Lily Pond and around the Loke Yew Hall. They are represented by some notable specimens: African Tulip Tree, Camel’s Foot, Camphor Tree, Coral Tree, Chinese Banyan, Hong Kong Orchid Tree (*Bauhinia* ‘Blakeana’), Frangipani, Jacaranda, King Palm, Mock Peepul, Queen Crape Myrtle, Red Kapok, Spider Tree, Swamp Mahogany, Sweet Gum and Weeping Willow. Along University Drive, *Bauhinia* trees of different species have recently been planted”, says Professor Jim, but he hopes to see more Azaleas of different blossom colours being planted as well.

“We need to expand upon the concept of more nature thriving alongside culture. The campus design should take into consideration the relationship between it and nature,” he says. “A proper lawn and perhaps a real woodland area built atop the new reservoir area too.” ■