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 (BA 1976), Chair Professor of Geography (Geol, Tree and Environmental Science), m editates 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 15°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.

"Roof top 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.

"Despite the small campus area, we are endowed with an interesting array of ornamental trees planted mainly by the Lily Pond and around the Lake Yew Hall. They are represented by some notable species: African Tulip Tree, Camel's Foot, Camphor Tree, Coral Tree, Chinese Banyan, Hong Kong Orchid Tree (Bauhinia 'Blaikena'), Fragipani, Jacaranda, King Palm, Mock Ficus, 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 fl and nature," he says. "A proper lawn and perhaps a real woodland area built atop the new reservoir area too."