



Conversation with Liak Teng Lit

A Vision for Community Health Through Gardens

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Historically, the ways in which Singapore’s residents have been encouraged to interact with green spaces have been mixed. On the one hand, impressive high-profile destination parks have focused on immersion in “nature”—be it untouched, engineered, or some combination thereof. On the other hand, a number of the everyday green spaces in close proximity to housing have been relatively uninviting—be they under-shaded recreational areas or plots of cleared, levelled, and grassed land awaiting future development. The latter, abstract spaces in limbo, can be particularly problematic; they are green spaces with which one is instructed not to engage by “no trespassing” signs—plots of vacuity with little biodiversity and offering little function beyond a visual corridor.

Such was the state of the land upon which Khoo Teck Puat Hospital (KTPH) was built beside Yishun Pond. “Before planning began, we came and sat here in the morning, in the afternoon, and on the weekends to see how residents moved around the neighbourhood,” explains Group CEO of Alexandra Health System Liak Teng Lit, previously the CEO of the hospital and an instrumental figure in its planning. “The pond was bare, with not much shade, and there was generally hardly anyone around it,” he explains of his experience of the Yishun Central neighbourhood. “In the morning, people would go the MRT station, and in the evening they’d return to their flats.” Nobody used the field, he adds.

“We wanted to create a community space—a place people would want to come into, not an obstruction to the neighbourhood,” he says of the vision for KTPH, which was designed by architect CPG Consultants, landscape consultant Peridian Asia, interior designer Bent Severin and Associates, and others.¹ This vision for a community space was as crucial to the planning of the hospital as the inten-

tion to use plants in a nurturing capacity for the benefit of patients, their families, and staff. In fact, the story of KTPH, as Liak explains it, is one that crossed administrative boundaries in pursuit of a broad conception of the connection between green spaces and health—physical, mental, and social.

Much has been written about the connection between gardens and healing²—an ancient strand of wisdom largely forgotten in the twentieth-century drive for efficiency in the healthcare system. KTPH offers plentiful garden spaces and plants at ground level, at a central basement level, up the elevations of the building, and on its roof. KTPH has replaced the site area lost to the building’s footprint with garden spaces at a ratio of around 1:3, says Liak, noting that “the balcony planting alone is 1.4 kilometres long”. Developed with the input of volunteers and “professional amateur” specialists in flora and fauna (such as local butterflies and fish), the gardens at KTPH expand on the precedent set at Alexandra Hospital, where Liak was CEO for a decade up to 2010.

“When you enter a hospital, you will invariably be very anxious about your own condition or that of a family member. When people come into KTPH, we want their blood pressure and heart rate to go down. The best way to achieve that is through the experience of greenery and the sound of water,” he says. “In healthcare, we actually bring pain and discomfort every time we approach the patient, even though we are trying to save his or her life. When we poke a needle into someone or simply move someone who has been badly injured, we inflict pain. We are trying to compensate for that with views of greenery from the rooms and calming earth tones in the interior,” he explains.



1. In tandem with KTPH's design, Yishun Pond was rejuvenated with naturalised edge planting, additional trees, and a sheltered lookout (Photo: Alexandra Health System).

2, 3. Like KTPH, the upcoming Yishun Community Hospital and Geriatric Education and Research Institute will make use of extensive greenery to benefit patients, keep the buildings cool, and attract the community into its grounds (Image: CIAP Architects).



"If you're in the ICU (intensive care unit) and you're in bad shape, I think seeing a butterfly flutter across the window will do something to you. This was how we visualised the project," he elaborates. Plants also serve to shield the building from the sun, reducing the heat load and ultimately reducing airconditioner usage. A heavy reliance on natural ventilation wherever possible is a feature of the architectural design.

KTPH also had a conception of the benefits of green spaces for users beyond the hospital. A goal was to draw the wider community into the hospital's gardens, into its health-conscious food court, and to the pond beside it. Yishun Pond's rejuvenation with naturalised edge planting, additional trees, and a sheltered lookout was the result of the KTPH team's negotiations with the Public Utilities Board (PUB), National Parks Board (NParks), and Housing and Development Board (HDB). Place-making was a key goal. "The problem with us today is we've forgotten about the communal spaces we need to have," Liak says of present-day Singapore. "When Liu Thai Ker was the CEO of HDB, he designed each precinct with a common space for every 600 to 800 households. That was where you'd find the coffee shop and hairdresser and where weddings and funerals would be held. After he left HDB, the focus shifted to building as cheaply as possible and the communal space was forgotten."

The benefits of a vibrant communal space, particularly if it is green, are many, Liak passionately explains, and intimately tied to health in multiple ways. "Plants play an important role in spaces where people can interact because they provide shade, create ambience, and can be very welcoming," he says. In future years, he suggests, the presence of spaces in which to interact with one's neighbours will become ever more important as the number of people living alone will rise. "Today, about a quarter of Singaporeans don't get married," he says, "so there will be a lot of lonely people." Additionally, the capacity for people to "age in place" with a good level of social interaction must be considered, he says, through the provision of communal spaces and accessibility. For those confined to wheelchairs, he says, there are few places to go within many of Singapore's estates. "Void decks are really void," he says, and furthermore, access routes can be long and convoluted. "We need accessible communal spaces with activities around them, such as playgrounds and Community in Bloom spaces. We need to bring back the feeling of the kampong." Certainly, the sense of an active and pleasant communal space resonates in the public garden spaces of KTPH.

Obesity is the biggest problem for healthcare worldwide, Liak says, and it will soon be an epidemic here as it is in the West. "Obesity leads to diabetes, which, if poorly controlled, leads to kidney failure. Obesity also leads to knee problems, amputations, and heart attacks." Part of the way to beat obesity, he suggests, is to design communities that will encourage people to be active, even via incidental exercise. This also influenced the goal of drawing the community into KTPH and out to the pond. Liak adds, "I think Singapore needs an accessibility agency that would look at the movement of pedestrians, cyclists, cars, buses, and trains. In other words, it has to be wider than Land Transport Authority (LTA)."

He continues, "Accessibility has to extend right into the home," citing the HDB corridor width as a problem for the passing of two wheelchairs. An accessible environment will be a healthier environment, he says. If towns were laid out with less priority placed on cars, he suggests, people would walk and cycle more. The well-used Park Connector Network, he notes, has been a great help in making Singapore's environment more conducive to health.

The rejuvenation of Yishun Pond into a more hospitable and attractive environment was undertaken to encourage active lifestyles among neighbourhood residents as well as hospital patients. Liak has a vision of linking treatment in KTPH with the use of the pond environment. "A lot of people don't exercise because they don't have a habit of doing it. One of the things we want to prescribe for obesity and diabetes patients is that after seeing the doctor, they must walk two rounds at the pond, go for a healthy meal at the food court, and only then be able to collect their medicine and go home. We haven't got this treatment programme going yet," he explains.


In general, Liak asserts that Singapore's environment is too sterile and clean and Singaporeans do not get enough contact with nature. "Now the schools have started using artificial turf. I think that's a problem. Kids will miss out on something—if nothing else, the immunity from diseases that comes from growing up touching the soil and the organisms in it. Studies have shown that kids who grow up in a very sterile environment end up with a lot of allergy and asthma problems. When they go for national service and suddenly have to dig trenches, they will get very sick. We are now living in such an artificial environment that people begin to think this is the norm. But 99.99 percent of the earth's surface is not like Singapore."

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Liak’s vision for a green and healthy Yishun region is currently being further developed with the construction of the Yishun Community Hospital and the Geriatric Education and Research Institute (GERI) beside KTPH. The new complex will also make use of extensive greenery for the benefit of patients to keep the buildings cool and to attract the community into the hospital grounds. Says the project’s lead architect Theodore Chan, Director of CIAP Architects, “KTPH has become a community beacon. Our scheme creates an extension of the KTPH environment with a strong infusion of landscape, and the approach of drawing people in to use the amenities.” Among these will be a community garden square on level two, which will look over a landscaped ground level achieved by raising the structure up on pilotis, in much the same way as traditional tropical houses were elevated off the ground.

As the complex will be a destination for long-term care (as opposed to the acute care provided at KTPH), the architects and consultant team members³ have paid particular attention to the creation of an environment with a calm ambience. Along with extensive planting, wood elements will soften the spaces and multiple balconies and external corridors will play on the idea of a traditional verandah space. Natural ventilation will be used for 90 percent of Yishun Community Hospital’s recuperation areas. Private wards and the GERI spaces will be air-conditioned. Internally, a heavy use of screening, rather than solid walls, where appropriate will enhance openness, air flow, and garden views. Atriums and horizontal vistas, says Chan, will establish a visual connection of green areas both vertically and horizontally, and glue the new facilities with KTPH.

Due to its extension beyond the hospital environment into the community domain and private home, Liak’s broad vision for

enhanced health through engagement with green spaces is certain to meet many obstacles. This is a reality he readily admits. “Different agencies are in charge of different things, and each, quite rightly, can be a bit obsessive about their focus. PUB is worried about flooding, so they want drainage. NParks is worried about the trees, and they need growth space for the roots. LTA is worried about traffic flow.” Yet, he assures, “Right from the beginning, everybody in the Singapore Government has seemed to accept that greenery is good for you, partly because of the leadership of Lee Kuan Yew.” The problem, he believes, is that many Singaporeans live in urbanised areas and don’t take it upon themselves to go to natural environments. “I think if most people had the chance to experience nature,” he says, “they would want it to be a significant part of their lives.” 

1 A list of consultants, descriptive text about the design, and images of KTPH can be found at http://www.designsingapore.org/pda_public/gallery.aspx?sid=844 (accessed 25 April 2014).

2 See for example a paper by Clare Cooper Marcus titled “Gardens and Health” at <http://www.designandhealth.com/uploaded/documents/Publications/Papers/Clare-Cooper-Marcus-WCDH2000.pdf> (accessed 25 April 2014) and the book *A Healing Space: Creating Biodiversity at Khoo Teck Puat Hospital* published by Alexandra Health System and available for viewing at https://www.ktp.com.sg/uploads/KTPH_EBook/index.html.

3 Among the consultant team for the design of Yishun Community Hospital and GERI are landscape architect Site Concepts International and interior designer Index Design.



4, 5, 8. KTPH offers plentiful garden spaces and plants at ground level, at a central basement level, up the elevations of the building, and on its roof (Photo: Alexandra Health System).

6. Liak Teng Lit, former CEO of KTPH and Group CEO of Alexandra Health System (Photo: Alexandra Health System).

7. Liak's work with KTPH expands on the precedent set at Alexandra Hospital, a pioneer in environmental best practices, where he was CEO for a decade up to 2010 (Photo: Alexandra Health System).