



Zeroing on Green

Three experts discussed ways to bring sustainability forward at the recent Build Eco Xpo exhibition in Singapore.

Last October, the latest edition of the Build Eco Xpo (BEX) Asia took place alongside a slew of design and architecture events held that month. BEX Asia stands out among them for its wholly green initiative. An annual event of the region's green building and construction industry that began five years ago, the 2012 affair saw a bigger bonanza with over 280 participating companies from more than 29 countries and four pavilions specific to the collective efforts of Singapore, China, Taiwan, and Portugal. It also coincided with Singapore Green Building Week and the International Green Building Conference, creating a tripartite event that emphasised the environmental agenda.

The key shift this time, however, was to veer away from industry circles and enlist the masses. "The building industry has hit a point where industry buy-in has been achieved, thanks in no small part to the efforts of the Building and Construction Authority," said Tai Lee Siang, president of the Singapore Green Building Council. "The next battle is for the heart and minds of the people - the average man on the street." BEX Asia encapsulated this credo in the conference theme: Green Community, Green Action. In the course of the three-day event, it was the three guest speakers at the Focus@BEX programme that jumpstarted an awakening for sustainable habitats and lifestyles.

Story by Elga D. Reyes

Gaurang Khemka

Founder and design director, URBNarc

When Gaurang Khemka was invited to grace the Focus@BEX programme, he learned that the two other speakers would be tackling sustainable interiors and architecture. He had a better idea. "I suggested that sustainability has to be approached at macro level, and most importantly for cities." So, he showcased a comprehensive presentation on 'Growth and Future of Cities: What Makes Them Liveable, Sustainable and Healthy', where he delved into the pressing situation of urbanisation and excluded his firm's projects.

As an introduction, he cited staggering statistics: in Dhaka and New Delhi, 48 and 49 people are respectively added per hour to the cities. "Urbanisation has reached an unprecedented pace and it is anticipated that 75 percent of humans will live in cities by 2050, if not earlier," he said. This poses a serious threat to the way humanity lives its life. Infrastructure, cars and transportation, and public spaces were some of the critical issues he presented, wherein

26 January/February 2013 Dwell Asia



Still in the design stage, this condominium development in Bangalore by URBNarc will feature the city's tallest vertical green wall (opposite). Similarly, Pomeroy Studio, acting as design advisor, included sky terraces and other green spaces for the Philippines' soonto-be tallest residential building, the Trump Tower Manila (above).

the scale, quantity and lack thereof produce cities that are soulless.

Khemka admitted though that the topic is complex and requires the "will of government and citizens."

But there are cities which serve as good benchmarks, like New York, Copenhagen, Curitiba and Singapore. In the Asian city-state, he said, "ERP or electronic road pricing, emphasis on public transport, public open spaces, stipulations for energy-conscious green buildings have all helped." To design sustainable cities, the urban designer emphasised the human dimension: to look at the healthy and interactive aspects of bicycling; designing cities at ground level considering eye contact between people as opposed to the far away distances established by tall buildings; designing for weather conditions; and including art in public spaces.

Although not mentioned in his talk, of his own projects, one is a condominium development in Bangalore, which will have a 23-storey vertical green wall, the first for the city and country. Sky terraces will also be included and rainwater harvesting, low-flow sanitary fixtures and solar panels will be appropriated. Khemka may question the carbon footprint of high rises but he knows vertical growth is here to stay. His resolution is simply to find ways of increasing its sustainability and conduciveness for human living.

Jason Pomeroy

Professor, principal architect and founder, Pomeroy Studio

Pomeroy Studio is the embodiment of Jason Pomeroy's stance as an architect. A graduate of the Canterbury School of Architecture and Cambridge University, he deftly balances application with research, and with both fully focused on sustainable built environments. His newly founded firm, in fact, has this working ethos: "distill, design and disseminate". The three 'D's formed the subject of his talk at BEX Asia.

He explained that to move towards a sustainable future his team distills past traditions and cultures to design

Dwell Asia January/February 2013 27

places that are relevant to people in the present. These designs are then similarly studied through post-occupancy analysis to draw further lessons on how to improve and be more progressive. Pomeroy stressed that in sharing such projects and case studies in books, lectures and events like BEX Asia, the conversation is opened up and enriched, perpetuating a learning cycle that hopefully leads to a better tomorrow.

He referred to his award-winning project, the Idea House, the first carbon zero housing prototype in Southeast Asia. The game-changing piece of architecture, patterned after a Malaysian kampong, has developed into a full-fledged undertaking of an eco-house. Dubbed the B Haus, this updated take on the traditional Singaporean black and white bungalow will capitalise on modular design for quick construction, rainwater and grey water harvesting, and open spaces meant to obtain natural light and ventilation.

Another ground-breaking endeavour of his and the studio is the Trump Tower Manila. The 60-storey skyscraper is set to be the tallest condominium in the Philippines once completed in 2016. Here, the master planner and skygarden advocate incorporated sky terraces and internal balconies into the structure, protecting it from heat glare while also lending it a visually strong façade. According to Pomeroy, "The tall building's environmentally responsive skin has an enhanced shading coefficient which, when combined, with the 600mm vertical fins that are oriented to the east and west elevations, helps mitigate low angle solar heat gain and reduces energy consumption by 25 percent."

Caroline Burns

Director and regional leader for Asia, Geyer

Caroline Burns of Geyer, an Australiaand Singapore-based design practice intent on strategized spaces, spoke on 'Hitting the Green (Mark) - Designing Sustainable Workplaces'. The director, also the regional vice chair for Asia for CoreNet Global, essentially highlighted the positive impact generated when corporations convert their offices into eco-friendly areas. The credible means to do so, she discussed, is by following the requirements of green certificating bodies like LEED and Green Mark. In adhering to a points system of eco-measures, the design and processes implemented - renewable energy sources, efficient water usage, sustainable management and operations, improved indoor environment quality - become holistic, accountable and beneficial to society at large. There is simply less and better use of resources. The workspace likewise becomes a healthier place to work, where employees experience reduced stress and increased productivity.

One of Burns' latest projects is the ANZ regional headquarters at the Ocean Financial Centre. According to her, "Geyer was engaged to adopt ANZ's global workplace guidelines and create an inviting, functional and brand-appropriate business environment." The result is a 20,800 m² office that is pleasant and peaceful, with flexible spaces

for efficient movement and an atmosphere conducive for staff and client interaction. This was achieved by creating the "same spatial experience on all floors." Each level was oriented to the preference of certification schemes and best practices, which are "core-to-perimeter depths of eight to 12 metres for maximum natural light penetration and access to views, which also helps reduce eye strain."

At the same time, other environmentally friendly examples Burns and her team employed were the use of green-labelled items for a significant amount of the materials, such as floor finishes, paint, lighting, workstations and task chairs. She said, "The characteristics of these may include recycled content, material sourcing (for example, plantation timber), recyclability, and VOC (volatile organic compounds) content."

Nature-inspired screens allow light and ventilation to permeate spaces while still maintaining demarcation for ANZ's new sustainably built regional headquarters (below).



January/February 2013 Dwell Asia