



ACE OF DIAMONDS

Cutting-edge design and ingenious use of space at this gem in Sentosa Cove

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JASON POMEROY
POMEROY STUDIO



ECO WARRIOR
Pomeroy hopes to make sustainability a key driver for all urban planners.

GREENING THE FUTURE

Eco-architect Jason Pomeroy builds and champions sustainable spaces as the way we will live tomorrow.

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Imagine living in a spacious bungalow and never needing to pay another water or energy bill ever again. Impossible, you may say but, thanks to 38-year-old eco-architect Jason Pomeroy, founder of design firm Pomeroy Studio, that dream is becoming a reality.

His latest project in Bukit Timah – the zero-energy (or rated very highly in energy efficiency) B House comprising two 500 sq m bungalows – is a continuation of his earlier Idea House for Sime Darby, a show home that was Asia's first fully functioning zero-energy house. In B House, Pomeroy reinterprets verandas and courtyards, elements of traditional black-and-white houses. These “permeable skins” provide lots of opportunities for natural light and ventilation. The modern touch: solar hot-water technology and rainwater and grey-water harvesting to reduce power and water consumption.

“An example of my passive design is how the narrowness of the floor plates is coupled with the house orientation to minimise solar heat gain, further reducing energy consumption, as you don't have to turn on the air-conditioning,” he explains.

“We've used materials that are natural, highly recyclable and low in toxicity. All of this – the energy footprint of the house – is offset by an array of solar cells on the roof that generates enough energy to sustain the family's electricity and water needs.”

Sounds like it costs a small fortune? Not so. “Everyone assumes that a zero-energy house must be expensive. But the B House project costs slightly less than the price of a standard Bukit Timah bungalow, because of the construction methods. We're a design studio that doesn't shy away from science. We term it ‘Creative vigour balanced with academic rigour’.”

The marriage of knowledge and design has been the keystone of the London-born-and-bred designer's work. He spent his years at Cambridge University forming ideas on greener, more sustainable design, and came away with a degree in green architecture – and his own three principles to add to the basic three of green design. “The common understanding is that sustainability has three bottom lines – social, economic and environmental,” he explains. “Socially, we establish a sense of community. Economically, we reduce spending on energy and water bills. Environmentally, we minimise our carbon footprint.

“I embrace the cultural, spatial and technological needs, too. Cultural sustainability is important because it seeks to preserve those traditions and cultures of a place that give us our identity, especially as we live in a globalised society where there is an increased

risk of cultural dilution or even eradication. With the gradual depletion of open spaces, once so intrinsic to social interactions, spatial sustainability ensures that alternative social spaces can be incorporated into developments. Technological sustainability doesn't just mean we utilise the latest tech sources, but also using what materials we have.”

Pomeroy has worked on expanding his portfolio with projects like Trump Tower in Manila, to be completed by 2016. His aim for that building is to cut running costs by 25 per cent, by lowering energy consumption. His secret? Simple engineering. “The east and west sides have external fins that act as a shading device. We've also managed to improve the shading coefficient of the glass so that there is less solar heat gain on both sides...so less energy is used to cool down the building.” Inside, spaces are open and “generous”, he says. The mid-level sky-court will offer recreational facilities including a gym, spa and swimming pools. And the angled balconies provide shade to the hottest parts of the building.

Pomeroy attributes his style of designing energy-conscious buildings to his inspiration, 17th-century English architect Christopher Wren. “He was such a multitasking individual. He designed some of the most beautiful buildings – St Paul's Cathedral, St Stephen Walbrook, the library at Trinity College in Cambridge. They are flooded with natural light and ventilation, way before sustainability was a buzzword.

“My work has always embraced the three Ds: Distil lessons from the past to Design for the present, and Disseminate that knowledge of sustainable living to the future.” Pomeroy hopes to build on that with his upcoming book, *The Skycourt and Skygarden*. The culmination of 10 years of research, it tracks the development of both through 40 case studies. It also posits skygardens as future solutions to public spaces in increasingly dense, vertical cities.

His side projects include being an adjunct professor at the University of Nottingham and the Mapua Institute of Technology, sitting on the editorial board of the Council for Tall Buildings and Urban Habitat, and even penning a script for a potential “green living” TV show.

The accolades Pomeroy has received include Cityscape Asia's Best Green Development medal and Hong Kong-based Perspective Global magazine's 40 Under 40 award. He takes it all in stride. “If I were to rest on my laurels, I'd lose my competitive edge. The pressure helps me to be very conscious of the need for improvement every day.”

“My work has always embraced the three Ds: Distil... Design... Disseminate.”