

**30 September 2013**

**Nottingham student's Singapore Vertical Farm concept wins Pomeroy Studio's 2013 'Design for a Sustainable Future Award'**

A Vertical Farm project concerned with food sustainability and vertical agriculture within the context of Singapore was this year's winner of Pomeroy Studio's Design for A Sustainable Future Award (DSFA). Matthew Humphreys, a Nottingham University graduate, subsequently joined Pomeroy Studio on the prestigious 3-months internship. He has now returned to the UK to finish the final year of his Masters in Architecture where he will then be awarded RIBA Part 2 accreditation.

In his last semester, Matthew undertook the Sustainable Tall Buildings design studio where he designed a Vertical Aquaponic Farm, on a site in Tanjong Pagar, Singapore. The design is a prototype for a new Singaporean urban vision, which sees many of these towers scattered over the island to produce sustainable agriculture and aquaculture for the local community. The design itself consists of an elongated tower, with the longest sides facing east-west for maximum solar exposure to promote growing. At the northern and southern ends, apartments are located for the farmers. The central parts of the tower consist of ETFE-clad atria housing aquaponic-growing systems for the production of fish and food; fish in the tanks produce ammonia rich waste, too much of which is toxic so must be removed. Bacteria in the fish tanks break the ammonia down to nitrates, which are taken in as food by the plants via their roots. This process filters the water as well as fertilizing the plants. Fish are then smoked in special smoking towers, the full height of the building. Structurally, the tower is lifted off the ground on large composite structural legs, which open up the ground floor interface to be used as a vibrant shaded market.

Humphreys believes that vertical agriculture may not necessarily be outside the realms of reality, 'The city-state is highly dependent on imports for feeding its growing population, with 97% of all food coming from abroad, and just over 1% of the total landmass of the country being devoted to agriculture. In addition, Singaporeans consume 100,000 tonnes of fish annually, with only 4% coming from local aquaculture', he commented.

Humphreys was noticeably upbeat when asked about his internship at Pomeroy Studio - not least for advancing his understanding in sustainable architecture, but also the plethora of experiences gained. He participated with Pomeroy Studio to plant 10 trees in Punggol Park for NPark's Tree Planting event at the end of June, to commemorate the 50<sup>th</sup> year of greening Singapore. In another recent CSR initiative in early September, Matthew also rolled up his sleeves in Batam, to dig septic tanks and prepare reinforcement bars for a home building project coordinated by Habitat for Humanity.

Prof Jason Pomeroy officially presented the Award to Matthew in front of an excited crowd on the evening of August 30<sup>th</sup> – at the book launch party of Pomeroy’s latest book, ‘Skycourts and Skygardens: Greening the Urban Habitat’. Matthew’s Vertical Aquaponic Farm is featured in the book, amongst 40 other current and forthcoming skycourt and skygarden projects from around the world.

Pomeroy Studio’s annual ‘Design for a Sustainable Future Award’ provides an opportunity for architectural design students to gain valuable practical experience and engage in research activity in Southeast Asia, whilst being based in Singapore. The award’s primary mission is to promote sustainable design early in a student’s career for the benefit of the individual and the built environment. Prof Jason Pomeroy, principal of Pomeroy Studio, and the originator of the award added: “The Studio believes that it has a responsibility to society to ‘Distil, Design and Disseminate’. We distil the essence of past traditions and cultures in order to design for people today and to disseminate knowledge for the benefit of people tomorrow. This will help preserve and enhance the natural and built environment – a prospect we enjoy sharing with the brightest students”.

Students interested to apply for Pomeroy Studio’s 2014 Design for a Sustainable Future Award should visit [www.pomeroystudio.sg](http://www.pomeroystudio.sg) for more information on eligibility and the deadline for submission.

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#### About Pomeroy Studio

Pomeroy Studio is an international team of designers and thought leader of sustainable built environments. The studio comprises of master planners, landscape architects, architects, and interior designers, as well as environmental consultants and academics. A rigorous academic approach to the quantitative and qualitative research compliments an interdisciplinary design process that lies at the foundation of their creative design and decision-making. This has allowed the studio to generate award-winning, people-centered places that push the envelope of design and research by balancing a ‘creative vigour with an academic rigour’, and deliver innovative sustainable solutions from the microscale of dwellings to the macro scale of cities.

[www.pomeroystudio.sg](http://www.pomeroystudio.sg)

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