

Greening Every Surface Laura Gatti at Palmstead



Wednesday 24th January 2018

Palmstead's Workshop 2018 on Wednesday 24th January plans to throw a light on eco urban architecture and the rise of vertical forests and roof gardens.

Dan Pearson, Laura Gatti, Nigel Dunnett and Tim O'Hare have been engaged as key note speakers at Palmstead Nurseries forthcoming Soft Landscape Workshop and will be speaking about vertical forests and gardens over structures.

Dan Pearson, the RHS multi-award winning landscape designer and Laura Gatti, agronomist and co-designer of the 'Bosco Verticale' (Vertical Forest) in Milan, will speak about increasing biodiversity in design, selecting the right plants and trees for vertical, balcony and roof schemes as well as looking at the reasons why the industry needs to look in greater depth at greening every surface.

This important trend of greening roof spaces has taken hold in London with 1.3 million square-feet of roofs now has green coverage, according to livingroofs.org.

Ahead of the workshop, agronomist Laura Gatti spoke to us about designing podium landscapes.

The Boeri Studio in Milan worked with Italian agronomist Laura Gatti to produce one of the most talked about and exciting projects of recent years - the *Bosco Verticale* in the Porta Nuova Isola area of Milan. The project consists of two towers of 80 and 112 metres, hosting 480 large and medium trees, 300 small trees, 15,000 perennial and covering plants and 5,000 shrubs. The equivalent - over an urban surface of 1,700 m² – of 20,000 m² of forest and undergrowth!

This vertical forest which put trees and plants at the very epicentre of its build is no longer a one-off. Gatti has further collaborated with the Boeri Studio on *Le Tour du Cedre* in Lausanne, Switzerland and is working on an emerging project in Najing in China as well as a social housing project in Holland.

What's striking about the *Bosco Verticale* build is that the agronomist and plants person was involved from the very beginning. Laura Gatti was on hand to talk about the plants at the start, to help the designers understand how the trees and plants would behave and how best to formulate the planting plans.

The decision to plant vertically was complicated and there were endless check-lists and answers to be found to multiple client questions.

Choosing the right plant for the right place was central to the design process. Gatti says: "we were looking for species that had the ability to withstand conditions such as wind pressure on crowns, had a low sensitivity to pests and diseases, plants that would enjoy container cultivation and also required low maintenance. We had to consider using plants that would not be allergenic or poisonous to inhabitants and would have the capability to mitigate air pollution and provide relief from audio pollution too."

Gatti is at pains to underline how important the choice of species was to the success of the design: "if a tree is okay, if it has no problems then it will have no reason to destroy anything - a tree will become destructive if it is looking for water, oxygen or nutrients, so if we provide the trees with the air, soil and water it needs then the roots will not cause a problem. We also obviously chose specimens who don't have aggressive root systems."

Gatti was bold with her plant choices and selected Mediterranean Ash, Green oaks *Quercus ilex*, and lots of flowering cherries to go alongside small magnolias and olive trees.

By planting hundreds of trees and perennials on every floor at the *Bosco Verticale* the designer created an environment that attracted birds and insects (ticking the box for increasing biodiversity) and simultaneously created a canopy which provided protection for the residents from the sun and from noise pollution and one which helped to absorb particles and CO₂ while also producing oxygen.

The *Bosco Verticale* has delivered benefits to those who live not just in the tower but in the vicinity too.

Gatti and her team have been monitoring the towers for the last five years and she says: “one of the most remarkable findings is the way that the towers of trees have helped connect not only the residents, but also Milano’s citizens, with the cycle of nature. A sense of community has been created through this shared relationship with nature as it’s displayed through the life cycle of the trees and plants as they grow and flower on the *Bosco*.”

Plans for a green vertical city in Najing in China were unveiled recently with office blocks, homes and hotels planted with shrubbery and trees in an attempt to mitigate the toxic pollution faced by its inhabitants.

The team estimates that the the buildings will suck 25 tons of carbon dioxide from Nanjing’s air each year and produce about 60 kg of oxygen every day.

Ninety four different species of trees and plants were used in Milan and there are plans to utilise 25,000 plants across two towers in Najing in China. *Le Tour De Cedre* in Lausanne will host more than 100 trees (4 typologies of cedar) and will be covered with shrubs and other plants over an area of 3,000 square metres.

Gatti is at pains to source her plants locally and finding a suitable market in China was a lot harder than the team initially thought it would be. After four attempts Gatti is now working with a good nursery in China. She says: “the quality of plants is essential to the success of these projects.”

Palmstead Nurseries have asked Laura Gatti to speak about plant selection and her plans for *Le Tour de Cedre* in Lausanne at their forthcoming Soft Landscape Workshop on Wednesday 24th January 2018. Gatti will be joined by Dan Pearson, Nigel Dunnett and Tim O’Hare as they discuss designing gardens over structures. To register for the event visit www.palmstead.co.uk

Palmstead Soft Landscape Workshop: Wednesday 24th January