

ecoLogicStudio

ecoLogicStudio specializes in art, architecture and technology for socioenvironmentally responsive cities.

Co-founded in London in 2005 by Claudia Pasquero and Marco Poletto, the studio has built an international reputation for its biodigital work. ecoLogicStudio operates in Partnership with Urban Morphgenesis Lab - UCL and Synthetic Landscapes Lab – University of Innsbruck.





H.O.R.T.U.S. XL

H.O.R.T.U.S. XL Astaxanthin.g is a large scale, high-resolution 3D printed bio-sculpture receptive to both human and non-human life. In the digital era a new interaction is emerging between creativity and the fields of life science, neuroscience and synthetic biology. The notion of "living" takes on a new form of artificiality. This project confronts the dictates of human rationality with the effects of proximity to bio-artificial intelligence. It is developed in "collaboration" with living organisms. Their non-human agency is mediated by spatial substructures we have developed while studying biological models of endosymbiosis.







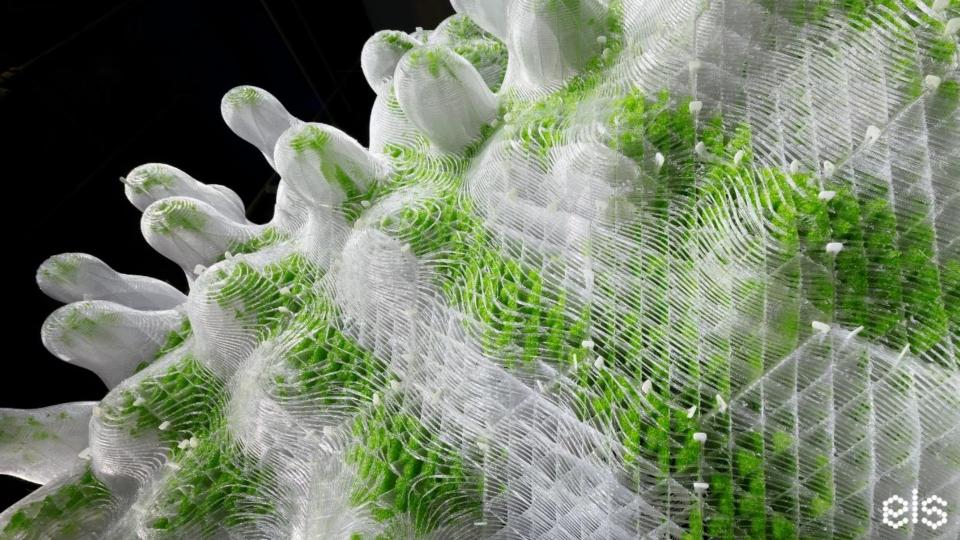
















Bio.Tech HUT

BIO.tech HUT is composed of three fluidly interconnected environments that loosely embody the fundamental programs of a living space. The Lab is a space of science and rationality, where new species of micro-organisms are domesticated and engineered into artificial cultivation environments.

The Living Hut, a nucleus of artistic experience, is divided into two rooms: the Bio.light Room and a further room featuring H.O.R.T.U.S.

A more open environment encompasses the Garden Hut, a space for production of super-food and bioenergy.

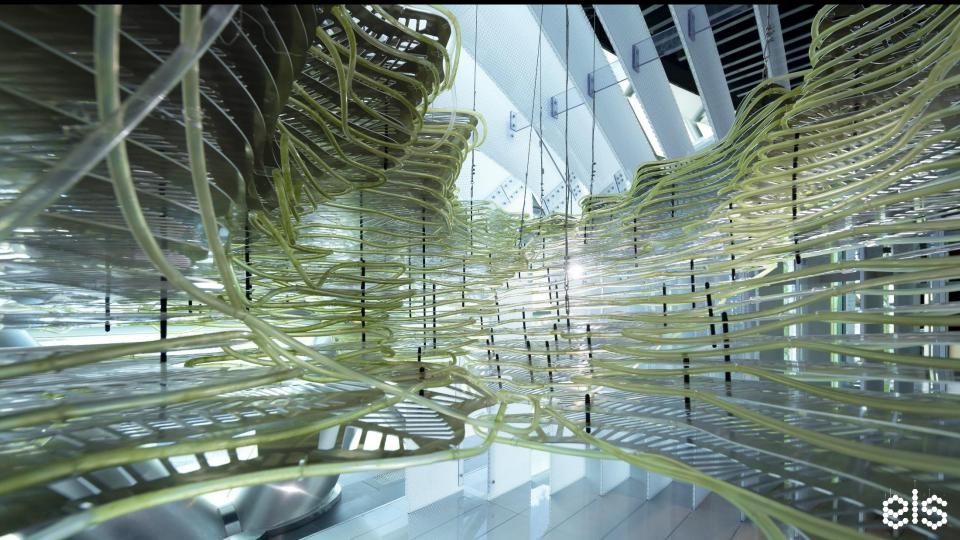






















SuperTree

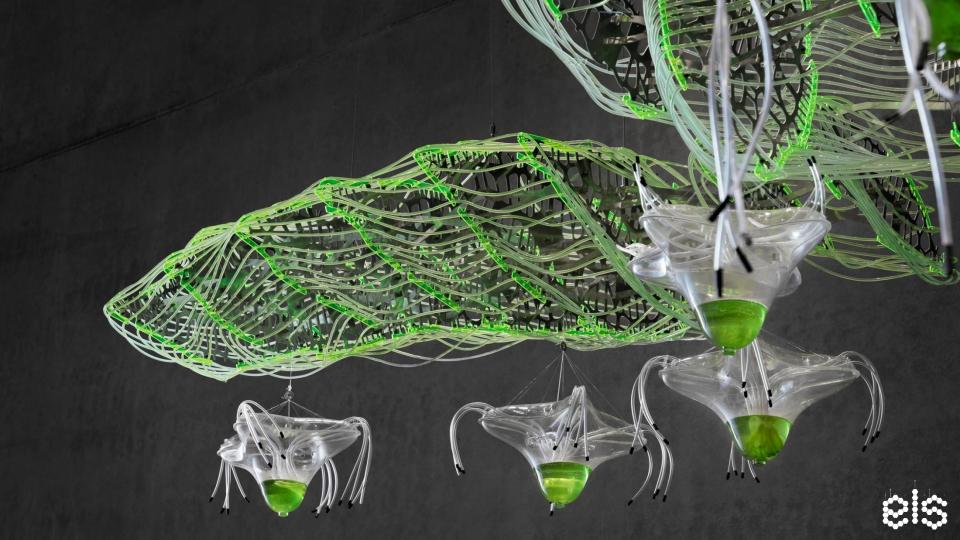
Trees, the most potent symbols of our old ideal of Nature, have now also evolved into carbon sinking machines, shading devices, flooding barriers, building material, marketing tools, serving the Urbansphere's increasingly demanding. operSuperTree is an architectural apparatus that repurposes the tree to optimize its infrastructural ations as part of the present and future Urbansphere. SuperTree transforms the archetype of the tree into a high-resolution, high-productivity photo-bioreactor, able to connect human metabolismto the proliferation of life within micro-algal ecologies.

















MetaFolly

"METAfolly" is a sonic environment which aims at establishing a playful dialogue with the user enabling the development of a form of metalanguage based on material experience, patterns recognition as well as a real-time meta-conversation. It revisits the architectural "folly" type as a synthetic organism.



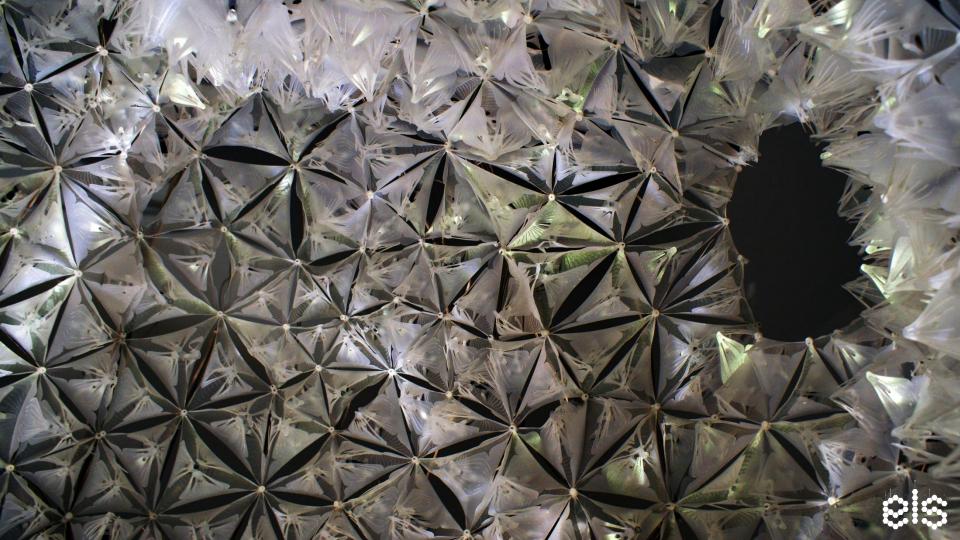






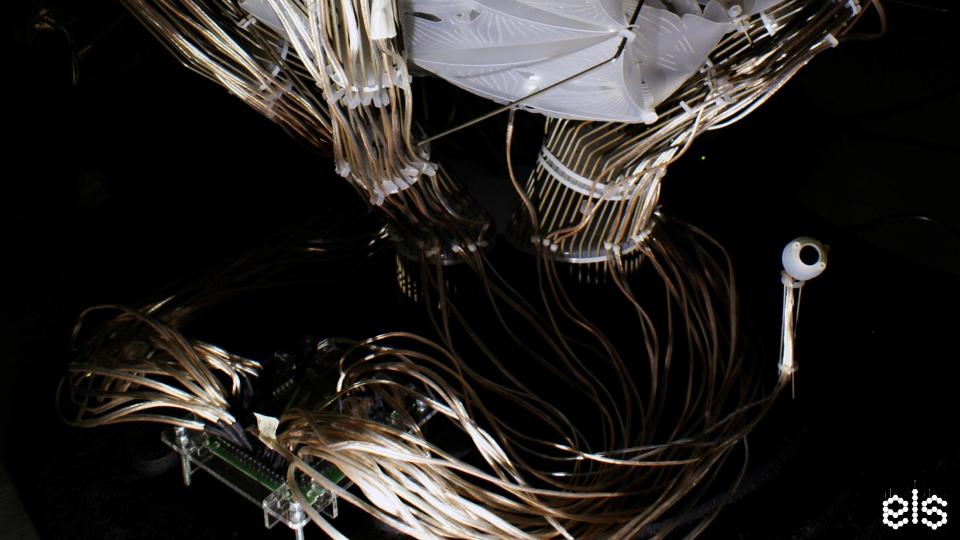












Urban Algae Folly

Microalgae organisms are enhanced by their cultivation within a custom designed soft ETFE cladding system. This represents a new interpretation of possibilities of the ETFE cladding. A special CNC welding technology is at the core of it and enables ecoLogicStudio to design and control the morphology of the cushions under stress as well as the fluid dynamic behaviour of the nutritious medium. The Urban Algae Folly produces 35g of Chlorella every day. In term of protein this is the equivalent of 750g of Meat per day. The Urban Algae Folly is also adsorbing 1.5Kg of CO2 per day, produce 750g of Oxygen per day which is the Oxygen that one of us is breathing every day.





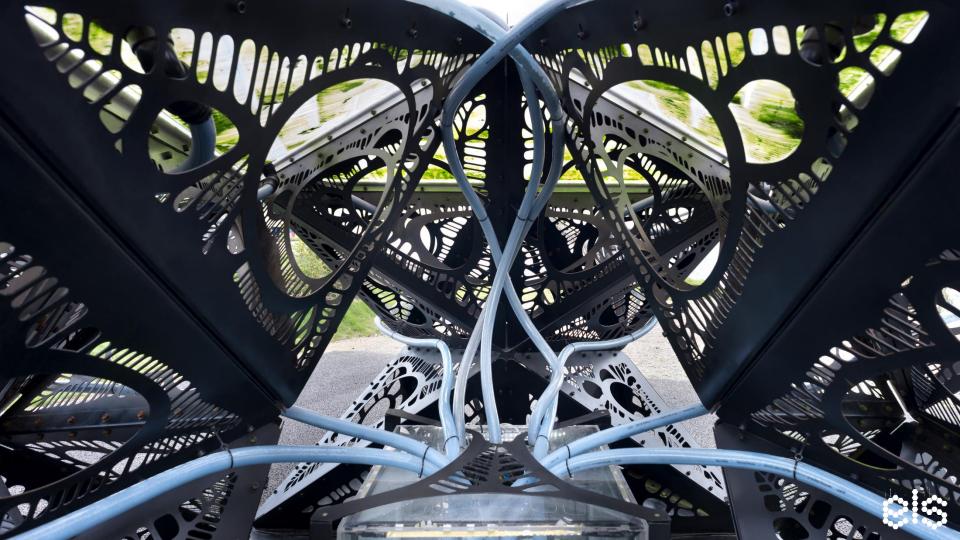
















Algae Canopy

The innovative architecture of the Alge Folly originates from the evolution of the well known ETFE architectural skin system; in this instance it has the ability to provide the ideal habitat both to stimulate Spirulina's growth and to guarantee visitors' comfort. The Folly is sensitive to human presence and movement; there are 8 proximity sensors on the 4 columns directed to cover all the space in and around the folly; as people move we read their presence and speed.

These numbers are transmitted to a central brain that computes the status of the 9 solenoids or electrovalves controlling the algal flow when exits from the pumps before entering the bioreactors or ETFE cushions.











Photo.Synth.Etica

Photo.Synth.Etica, conceived by London-based architectural and urban design firm ecoLogicStudio in a partnered consortium with Urban Morphogenesis Lab — UCL and Synthetic Landscapes Lab — University of Innsbruck, has been presented in Dublin during the week of Climate Innovation Summit 2018. An "urban curtain", it captures CO2 from the atmosphere and stores it in real-time: approximately one kilo of CO2 per day, equivalent to that of 20 large trees.





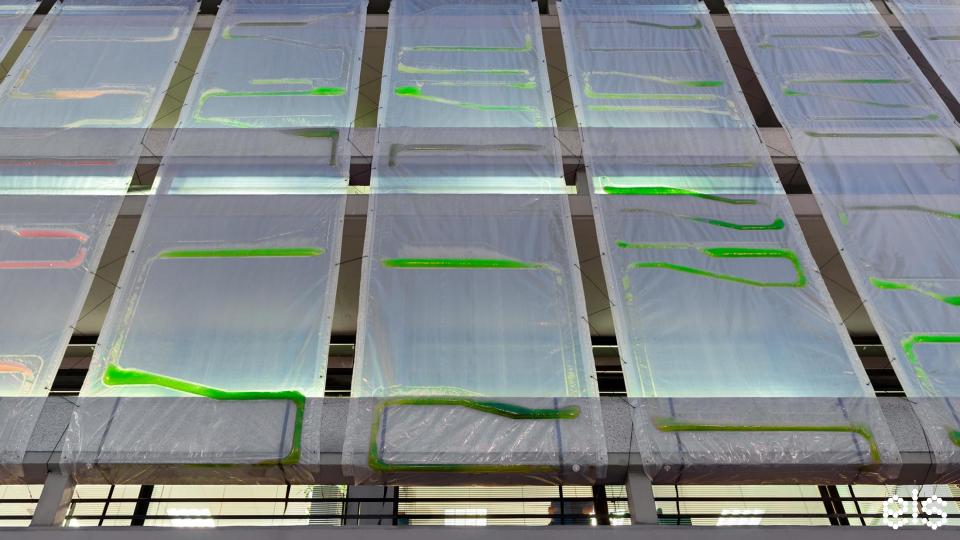




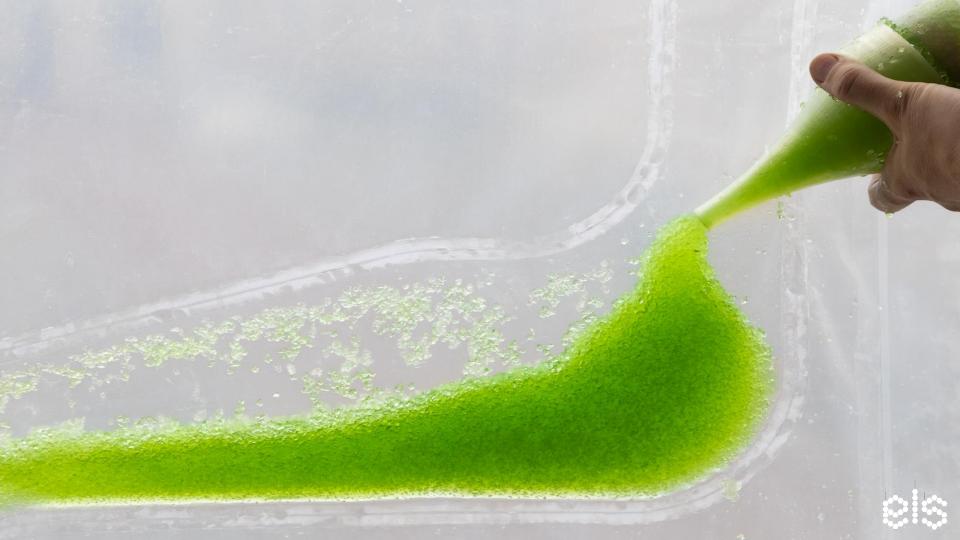














H.O.R.T.U.S. AA

H.O.R.T.U.S, designed for the AA Front Members Room, engages the notions of urban renewable energy and agriculture through a new gardening prototype; the proto-garden host micro and macro-algal organisms as well as bioluminescent bacteria; fitted with ambient light sensing technologies and a custom designed virtual interface, H.O.R.T.U.S stimulates the emergence of novel material practices and related spatial narratives.









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Links

Main Company Website; www.ecologicstudio.com

Consortium Recent Work; www.photosynthetica.co.uk

Educational Programmes; www.urbanmorphogenesislab.com



