

Petal Power Place

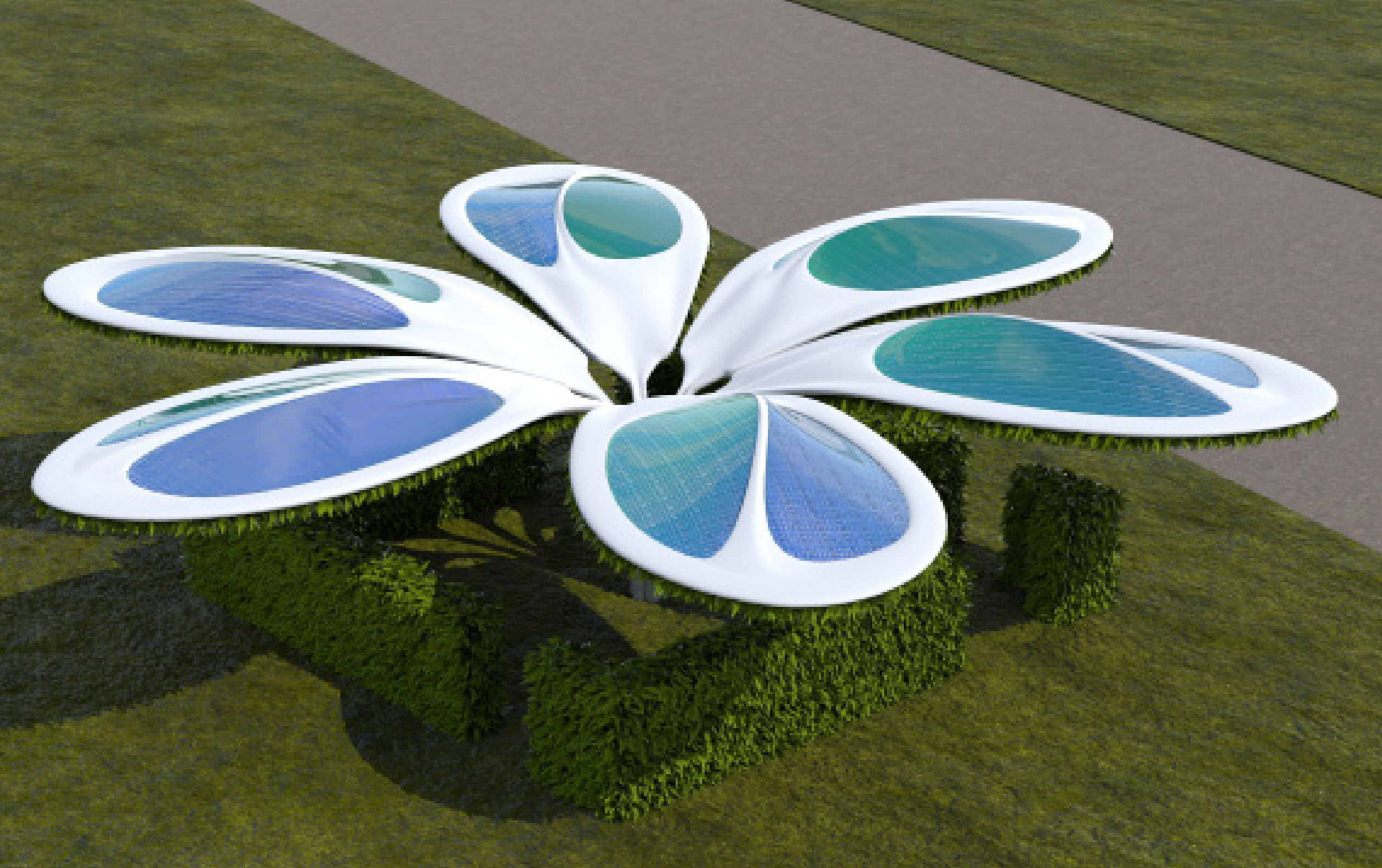
A FRAMEWORK FOR AGRIVOLTAIC SYMBIOSIS

Petal Power Place combines innovative technologies to explore ideas of decentralized renewable energy systems that are not only being beautifully integrated into our urban environments but also SHARE infrastructure with urban farming to maximize the utilityof existing structures.



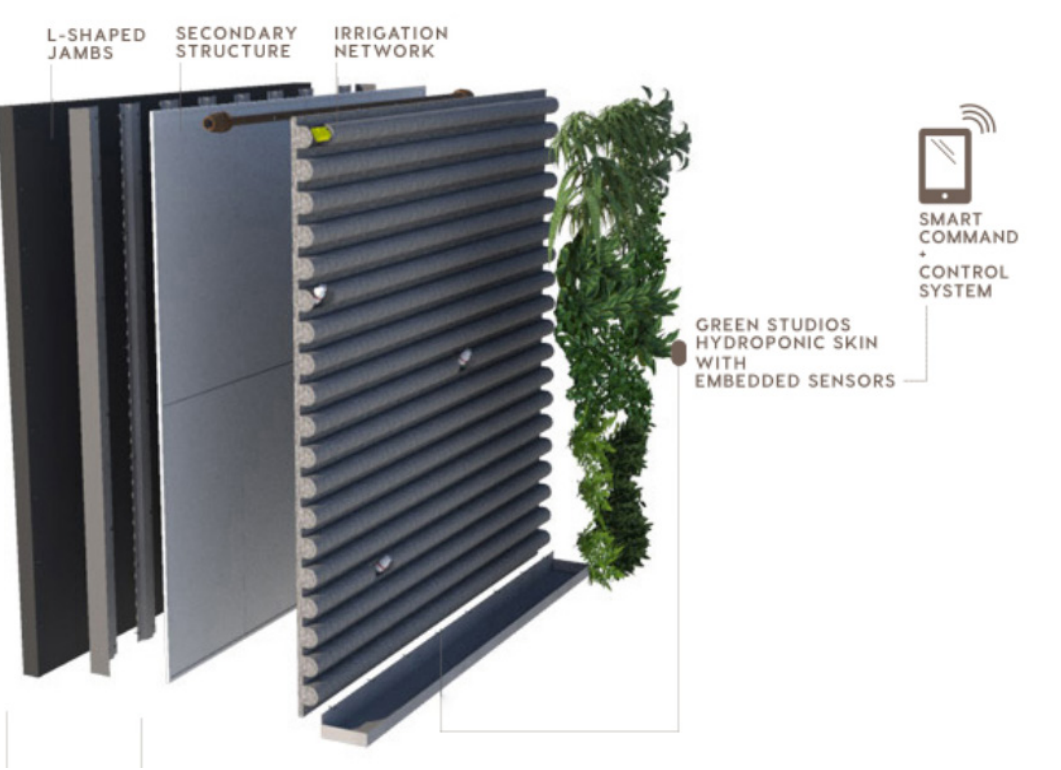
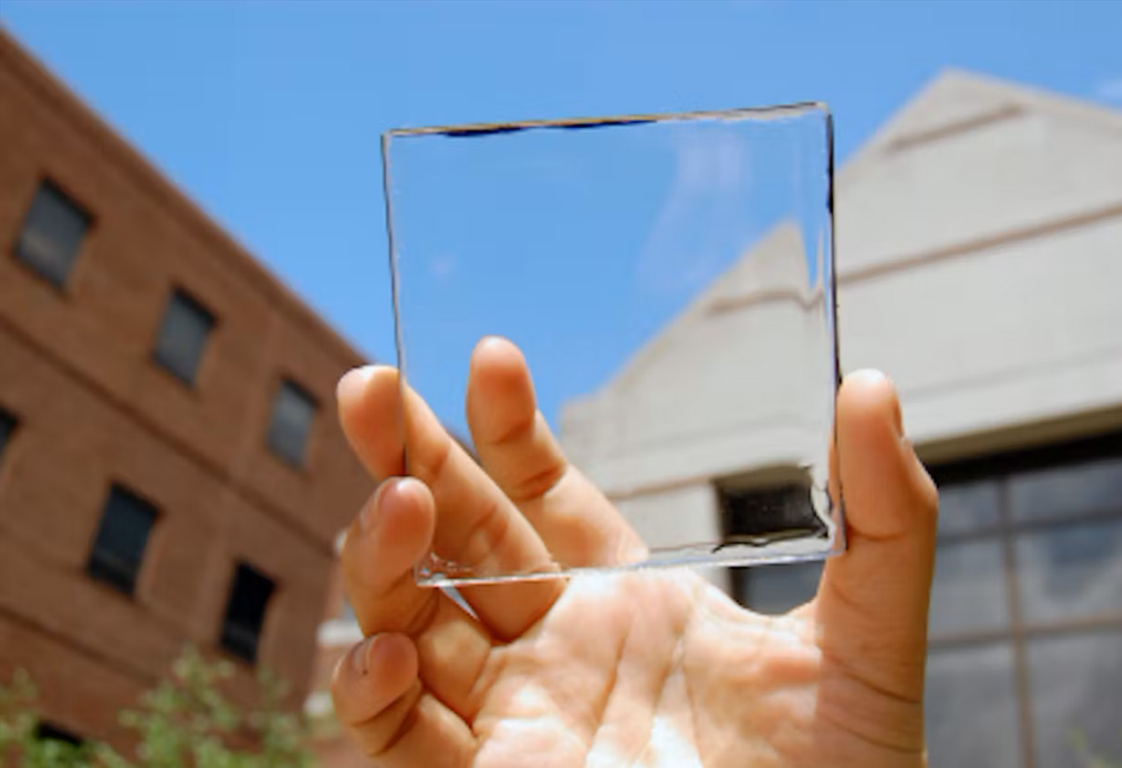
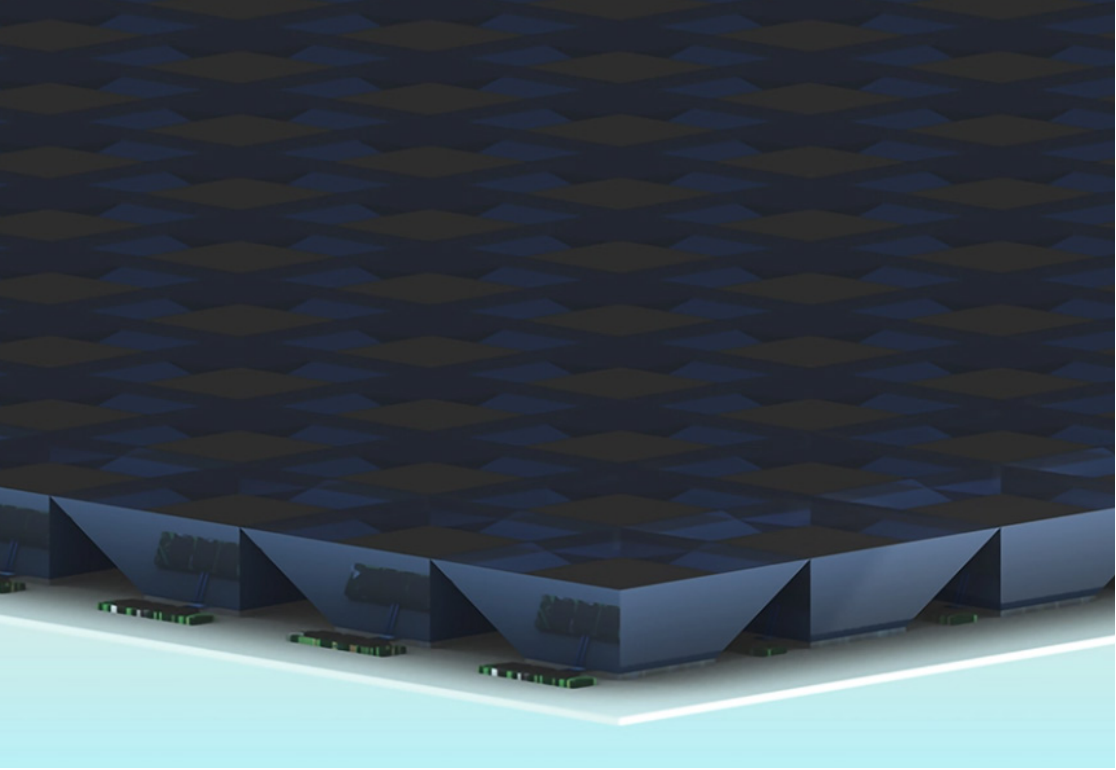
SITE PLAN (ABOVE):

ART FORM depicting Model 2 that uses AGILE solar concentrators in combination with Greenstudios hydroponic skin (BELOW)

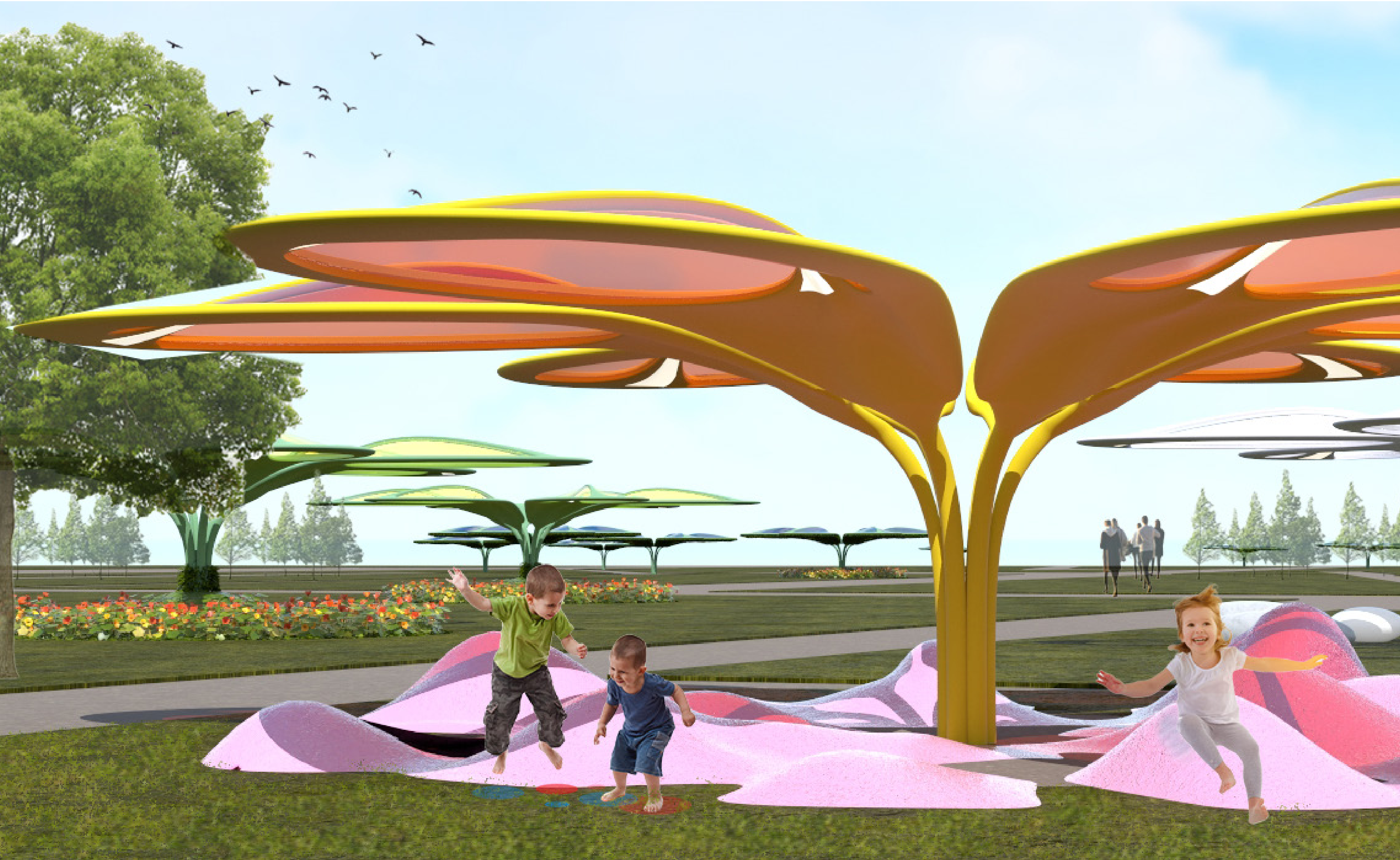


TECHNOLOGY

1. AGILE (Axially Graded Index Lens) non-tracking solar concentrator array by Stanford University: These 3D printed concentrators eliminate the need of the solar tracking infrastructure, increase efficiency of the panels by the concentration factor of 2, and conserves resources such as precious semiconductors such as silicon required in the manufacturing of solar arrays.
2. LSC (Luminescent Solar Concentrator): Boasting potential in the realm of BIPV as windows, it can be a great application for greenhouses, and provides a beautiful biophilic experience of day-time transparency and night-time luminescence making it a perfect material for flower sculptures
3. GreenStudios smart, lightweight, hydroponic skin: Eliminating the weight and maintenance issues of soil-based green walls, this sensor controlled, and water-efficient hydroponic skin can be easily applied to any form of structure serving as an artistic canvas for upside-down and vertical farming. Energy crops can be farmed on the skin to produce biomass energy.



Life around Petal Power Place Model 1. Model 1 uses LSC to shade activity areas or landscaping at the site of Spinelli Park



SPECIAL FEATURES of the sculprures include self sufficient water collection system that feeds the upside-down farming surface and provides an open canvas for landscape art or farming energy crops

