



The 'Living Skyscraper' | Photo source [Evolu](#)

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LIVING SKYSCRAPER CONCEPT MADE FROM GENETICALLY MODIFIED TREES

 ARCHITECTURE & DESIGN

By analysing the active process of urbanisation and a decrease in the percentage of green spaces, the Living Skyscraper hopes to solve a number of environmental and urban issues

Spotted: A team of Ukrainian architects has designed the so-called “living skyscraper”, which is made from ‘genetically modified’ trees and could be developed in New York. One of the main goals of the project is to grow a living skyscraper on the principle of sustainable architecture.

The Living Skyscraper was submitted to the “eVolo Skyscraper Competition” and chosen among 492 submissions. The skyscraper tree, which will function as a green habitable space in the middle of the concrete metropolis, can be thought of as a separate living organism with its own root system, irrigation and maintenance mechanisms.

The architectural project has been envisioned for Manhattan, designed to serve as a lookout tower for New York City while encouraging ecological communications between office buildings and green recreation centres.

Composed of the following eight designers: Andrii Lesiuk, Mykhaylo Kohut, Sofiia Shkoliar, Kateryna Ivashchuk, Nazarii Duda, Mariia Shkolnyk, Oksana-Daryna Kytsiuk and Andrii Honcharenko, the team proposes using genetically modified trees that will be fast-growing and tall. During the development phase, the branches of nearby trees will be grafted at different levels to form a network that will strengthen the skyscraper as it continues to grow.

The team further explains how the branches of hybrid “trees of the future” will form the structure of a living skyscraper and feed on soil, water, and sun resources, forming an ecosystem that is essential for large agglomerations. Lesiuk said his father gave him the idea when he mentioned a

documentary about paulownia trees, one of the fastest-growing species on earth, growing three feet a year and reaching a full height of 30 to 40 feet within a decade.

The growth of the trunk circumference will also gradually increase the strength of the wood structure and improve its self-supporting properties for the building as a whole. As it grows, the living skyscraper will connect with neighbouring buildings and form green overhanging communications.

Written By: Katrina Lane

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Email: skyscraper2021@evolo.us

Website: evolo.us

Takeaway:

There has been an increase of 37 per cent in urban growth in the last five decades, directly associated with the clearing of 50 per cent of forests, according to research. The Ukrainian-based design team believes that by integrating genetically modified trees during the stage of their growth and development into architecture, we can restore the balance between the digitalised megacities and the Earth's resources, which are gradually depleting.