Urban Jungle: Forest Cities to Battle Pollution

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Description

In light of "Vertical Forests" being built in China, Italy, Switzerland, and Brussels in an effort to encourage eco-friendly lifestyles across the globe, the possibility of *"Forest Cities"* is now a not-so-distant reality. These cities would be constructed entirely of vertical forest structures of all different sizes, and would be capable of battling pollution in contaminated cities.

Italian architect Stefano Boeri, currently working on two vertical forests in Nanjing, China, and known for his skyscraper garden, the "Bosco Verticale," is already beginning the design of the first forest city, set to be built in Luizhou, China. This is meant to be one in a series of sustainable mini-cities that will act as a "roadmap for the future of urban China," and undoubtedly a eco-conscious launch-pad for urban cities worldwide.

Importance

China is known for its blankets of smog and pollution, the Northern region still hit yearly by the "airpocalypse," when the pollution is so bad it must shut down under red alert. But many cities and countries follow close behind, and often such highly populated areas no longer have room for trees and plants to better the atmosphere. The creation of "vertical forests" brought the solution of placing plants directly in the polluted zone to battle the toxic air.
Structures like this would be built from recyclable material and powered by solar panels, with anywhere from 2,500 shrubs (Nanjing) to 30,000 plants (Brussels) cascading down the sides. In large numbers, these plants are capable of absorbing CO_2 and producing oxygen in such a way that may finally improve air quality.

Vertical forests and cities also provide both residential and commercial spaces. In one, there will even be a museum, and an eco-conscious architectural school.

Implications

The creation of vertical forests alone point to the growing awareness of environmental conflict, and the urgency for change on larger scales. If successful, the three vertical forests to be built in Brussels would be capable of absorbing 175 tons of carbon dioxide (CO_2) annually. Boeri's structures in Nanjin are meant to absorb 25 tons of carbon dioxide each year, and produce about

60 kg of oxygen each day. But Boeri terms these recent projects as only a "skin graft," of what will be considered an "organ transplant" upon the arrival of the first forest city.
Unlike the current skepticism U.S. authorities are portraying in regards to environmental issues and climate change, highly polluted regions in Asia and Europe are taking the harmful effects of toxic air very seriously, and turning to new advancements in architecture.

This marks a unique moment in time where it has become necessary to peacefully combine nature with machine; to truly recognize the importance of the planet, and find ways to incorporate its nature in our day-to-day technological advancements.

Opportunities

Improving air quality will undoubtedly bring a decrease in lung and heart issues, and an increase in overall health of citizens in highly populated areas. Lush green plants are also capable of boosting morale and promoting mental health. Such changes will likely bring about newfound efficiency in businesses, a rise in tourism, and bring positive changes within more intimate relationships.

This will act as an example of how to make environmental changes on a large scale, and will hopefully spread to cities across the globe. This will also boost eco-awareness within architectural schools, and could even extend to other industrial departments, such as transportation, or even developments in the home or at schools where children can thrive in more natural environments.

There will also be possibilities to become creative with such plants, perhaps adding flower design, trees, and maybe even agriculture.

Large developments battling pollution are capable of extending our time on Earth as a whole.

Questions

I wonder about the effects of weather, maintenance, and cost.