

Architect imagines BT Tower as pollutant-scrubbing haven

July 5 2013, by Nancy Owano



(Phys.org) —File under Big Idea. Use a city building to trap pollutants, clean the air, and convert car emissions into biofuel? An architect has such a concept. The idea is to attach a special carbon fiber and steel structure to London's BT Tower, one of the city's tallest buildings. The structure could suck up pollutant particles like a vacuum cleaner. The

process would involve "harnessing advancements of various particle-capturing technologies," according to a report in *Dezeen*, and this process would also involve extracting the carbon from fumes and using it to produce a sustainable biofuel.

"The project aims to show how hybridized new infrastructure can gather pollutants, store, digest, and harvest them to dilute minerals and biofuels, celebrating clean air process on the ground level," according to the architect, Chang-Yeob Lee. He is a Royal College of Art graduate. He calls his concept the Synth[e]tech[e]cology design. Lee created the concept as his diploma project. He was one of two winners of the Sheppard Robson Student Prize for Architecture.

The structure he has in mind is made out of [carbon fiber](#) filled with nanotubes. These tubes capture [carbon dioxide](#) and mix it with a [catalyst](#). Steel rigging would be used to fix the structure to the tower. While the exterior of the tower would behave as a [catalytic converter](#), a research facility in the interior would be at work exploring ways to increase air movement and maximize the structure's efficiency.

The artist impressions of the carbon fiber and steel rigging structure makes the building look like a special-effects stage prop in an action movie. Nonetheless, he is quite serious about the problem of air pollution, and how the idea might contribute toward alleviating the problem. It could be a marker for a way of thinking about how buildings can better serve the environment. Air pollution is a public health risk, and the BT Tower, he suggests, could be repurposed. It could be an eco-skyscraper that cuts the level of dirt particles and helps to reduce the level of respiratory illness in London. (The BT Tower, a communications tower in London, was previously known as the Post Office Tower.)

"Harnessing advancements of various particle-capturing technologies,

this project envisions that air [pollution](#) as a valuable commodity in an age of depleting resources," said Lee. Commenting on his choice of the BT Tower as the project focus, he said it could serve "as a hybrid between a vertical oil field and laboratory for future resources scrubbed from the atmosphere."

More information: www.dezeen.com/2013/06/24/synt...y-by-chang-yeob-lee/

© 2013 Phys.org

Citation: Architect imagines BT Tower as pollutant-scrubbing haven (2013, July 5) retrieved 20 March 2024 from

<https://phys.org/news/2013-07-architect-bt-tower-pollutant-scrubbing-haven.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.