

## **Ecology influence in modern architecture**

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Our research is devoted to new ecological projects in architecture such as The Noah Oasis, TREEPODS: Carbon-Scrubbing Artificial Trees for Boston City Streets, Tower of Refuge (Noah's ark), Bio-Pyramid: Reversing Desertification and others. And of course, we suggest our own project Innovative bus stops for Minsk or any other city.

The 'Noah Oasis' imagines the transformation of oil rigs into vertical bio-habitats in the ocean landscape, aiming to exert instant response and restore damaged eco-system from oil spillage whilst offering shelter from future disasters. Short term strategy: absorption of spilled oil, medium term strategy: habitat for marine life and migrating birds, long term strategy: shelter from future disasters.

The TREEPOD systems are capable of removing carbon dioxide from the air and releasing oxygen using a carbon dioxide removal process called "humidity swing". In addition TREEPODS will also include solar energy panels and will harvest kinetic energy. Both the solar panels and the kinetic energy station will power the air filtration process. The TREEPODS themselves will be made entirely of recycled/recyclable plastic from drink bottles.

We know more and more species of animals and plants are now endangered on the Earth. How to maintain species diversity? Human have to build up a Noah's ark, which guarantees the provision of three elements of life: sunlight, air and water. Meanwhile, enough soil and food are essential for growth and reproduction. Based on these basic concepts, scheme about Tower of Refuge has come out. Tower as a huge refuge, likes a self-operating machine serving all survival conditions. It can obtain and filter water and air, reallocate sunlight and transform solar energy for tower using.

"Bio-Pyramid" is a non-conventional skyscraper that not only operates as a "bio-sphere" but also as a gateway from Cairo across the Sahara Desert. This proposal is not only a viable economical gain for cities like Giza and Cairo, but also stands as an architectural eco-techno statement that mixed-use typologies are more relevant as we diverse globally and sustainably. It is an evolutionary morphisms of the ancient pyramids + modern skyscraper + bio-sphere.

We decided to supply Minsk with "green" energy. As a result we made a project of bus stops, working on solar batteries. Solar bus stops can be used for charging any electric devices: from cell phones to electric scooters; for effective lighting, for connection to the Internet. You can also find information about transport, which is displayed on a digital screen.