

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ  
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ  
КАФЕДРА ІНОЗЕМНИХ МОВ  
ЛІНГВІСТИЧНИЙ НАВЧАЛЬНО-МЕТОДИЧНИЙ ЦЕНТР**

**МАТЕРІАЛИ  
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КОНФЕРЕНЦІЇ  
ЛІНГВІСТИЧНОГО НАВЧАЛЬНО-МЕТОДИЧНОГО ЦЕНТРУ  
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## VINCENT CALLEBAUT: PROJECTS AND BUILDINGS IN THE WORLD

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Today the world is concerned with three main issues: global warming, the price of oil and food crisis. I want to talk about the first item, because humanity has decision today.

Vincent Callebaut is a French architect who creates a "green" projects for the future "Ecopolis", combining architecture with biology, information and communication technologies. His famous projects:

- Coral Reef project;
- Lilypad;
- Hydrogenase;
- catalyst for clean air;
- project Dragonfly and so on.

Eco Village "Coral Reef" is a settlement for thousands of Haitian families who was affected by a major earthquake in 2010. This village has the shape of a coral reef. The village is designed that each family will have the own plot of land, where they will grow edible plants, and green area for recreation. The foundation is designed so as to absorb any earthquake wave power. Roofs of houses, roofs of balconies and arbors will convert thermal energy. This village will use various renewable energy: the energy of ocean currents, wind and solar energy. Giant wind turbines will generate power too, they will be placed on a large tropical garden.

Lilypad is the island of the future. The shape of the island is very similar to a lily and the architect named it Lilypad. Sea level will increase significantly according to forecasts of climatologists in the next hundred years, and many people living in the lowlands will be forced to find new homes. The offer of Callebaut is a fully autonomous floating city, where 50 thousand people can live. The center of Lilypad is the lake, which will collect and purify rainwater. This "city of the future" has zero carbon emissions into the

environment and is powered by renewable energy sources, including sunlight, wind and tidal energy.

Hydrogenase is the transport system of the future, it is eco-friendly aircraft. Hydrogen is a fuel for it. Hydrogen will receive from marine algae, which are converted into carbon dioxide under sunlight. It can lift 200 tons of cargo and will be able to reach a speed of 175 km/h. Hydrogenase will win in the competition with plane or car concerning environment and low costs.

Catalyst for clean air includes public galleries and meeting rooms. It was built on the territory of canals and abandoned railroad in the 19th district in Paris. It is a public equipment dedicated to promote the last innovations on the theme of sustainable development in urban area in terms of housing or transport. The role of it is to apply all the renewable energies so as to fight against the Parisian smog.

This construction was called "Dragonfly", because the main part of it is the wing of a dragonfly. Dragonfly sets up along the East River at the South edge of the Roosevelt Island in New York between Manhattan's Island and the Queens' district. The height of "Dragonfly" is 600 m (with antennas - 700 m), or 132 floors. There are 28 fields for growing a variety of crops and farm animals inside it. Of course, there are offices, apartments, food market and water taxi.

Many scientists say that humanity will not be able to live in the world, but the buildings by Vincent Callebaut will help us to deal with global environmental problems, because they use only renewable energy. People, who will live there, will feel very comfortable, because the conditions are very similar to the earth.

Unfortunately only few of the projects were realized today.