a vicious circle between global warming & storms & hurricanes

Problem
Exploration
&
Concept
Development
&
Story
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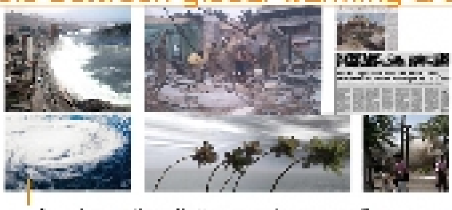

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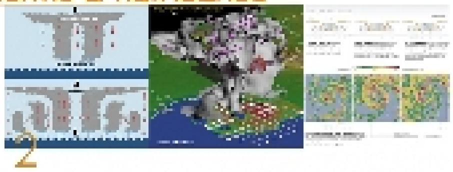

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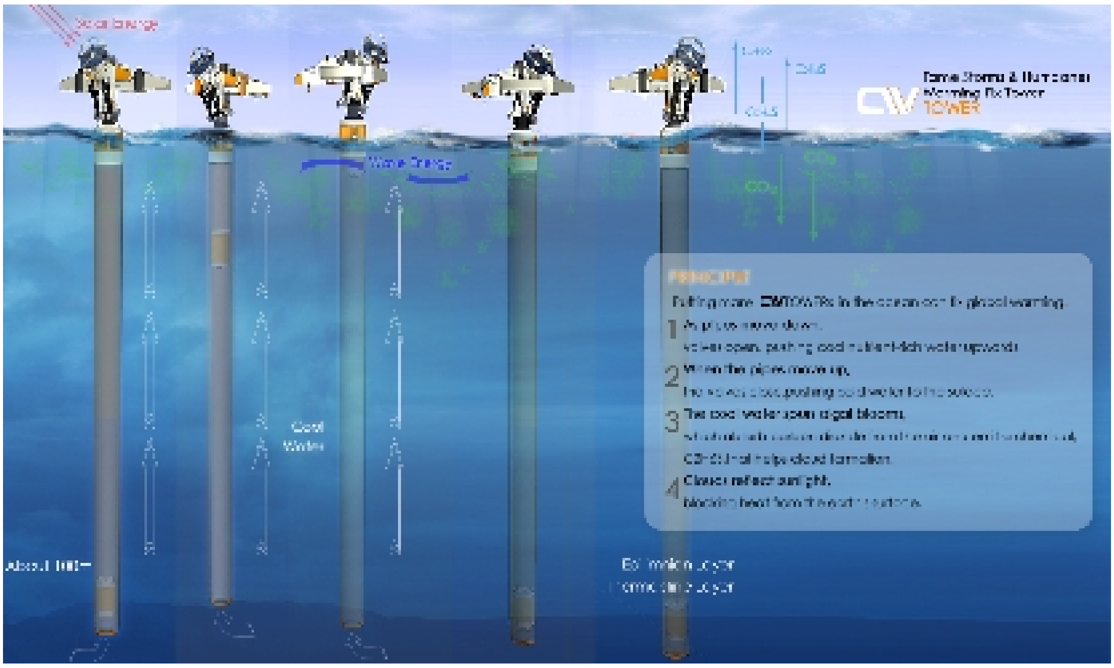

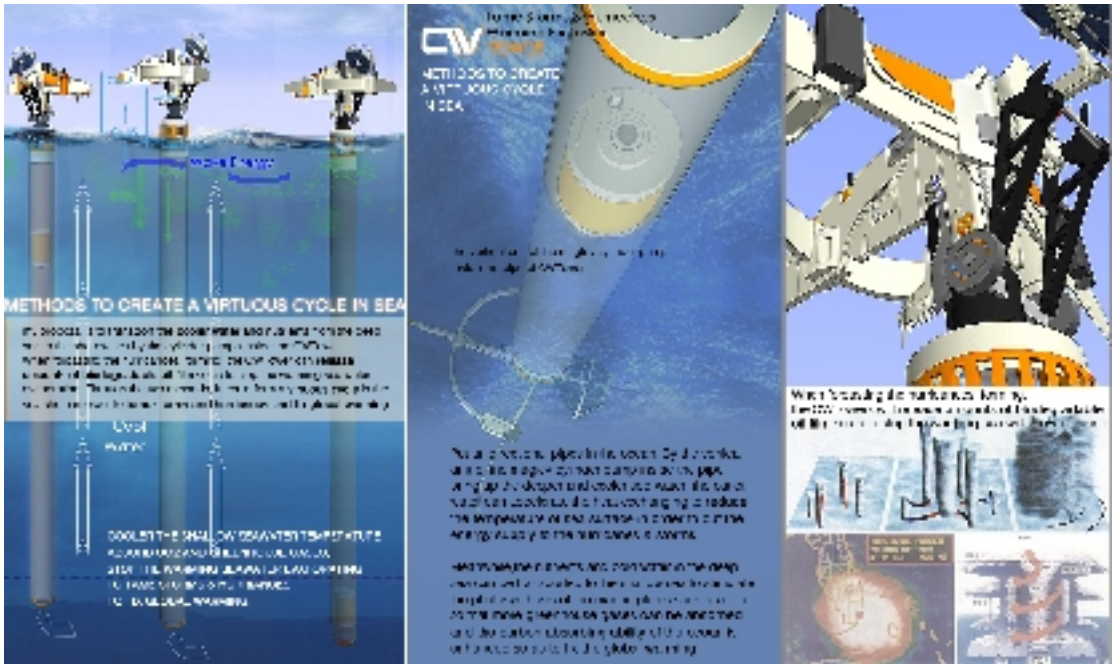

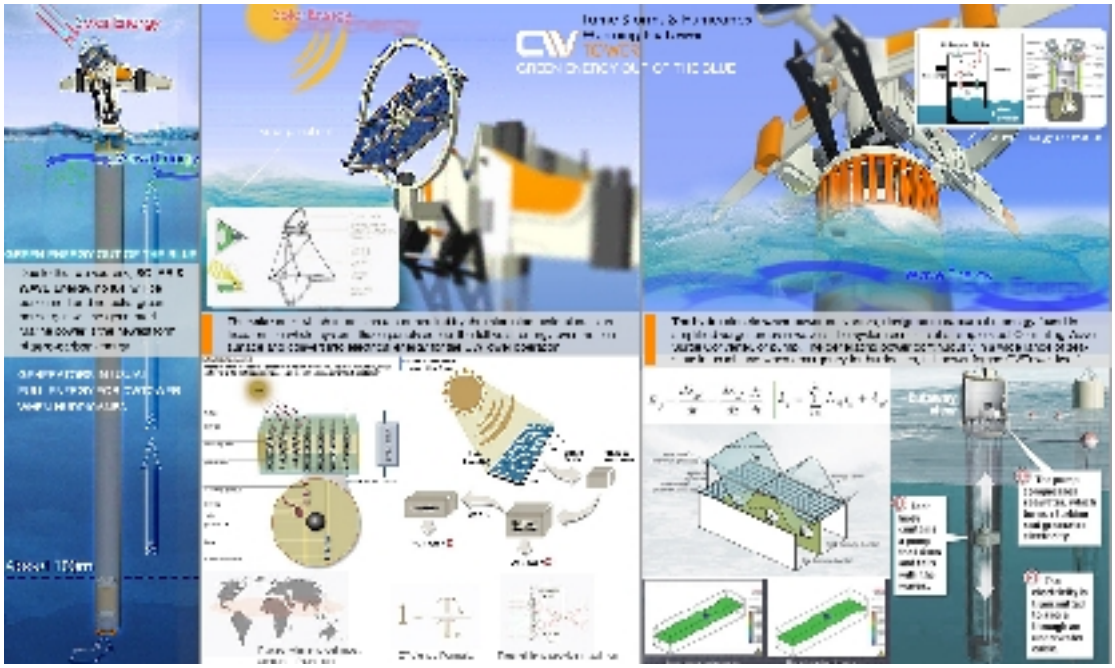

Project Summary

CWTower

The hurricane and tsunami led to numerous damages, casualties and asset losses all round the world these years. These disasters are urgent and can not be avoided. They will cause economic and social threats like the poverty, infectious diseases and environmental degradation, so how to prevent this natural disaster is an urgent task. The

only method is to establish effective warning mechanisms to deal with the global crisis.

The reason causes the hurricane is the increasing sea temperature, because the hurricane will get the energy from the hot and wet air over the sea surface. In fact, because of the global warming and the increasing sea temperature, tropical storm, hurricane and the tsunami will be more intensive.

An ocean research company named Atmocean has reached the scientific conclusion that: as every 1F sea temperature decreased, the power of the hurricane will be decreased by 5%. If the wind force is decreased from 120 miles/hour(about 193km/hour) to 110 miles/hour(about 117 km/hour), the damage will be decreased by 23%

Facing the disasters like the hurricane and the tsunami, and the vicious cycle of natural disasters caused by global warming, we cannot sit still. Reasonable effects can not be reached only by reducing emitting the greenhouse gas. Globally, more and more companies and people brought up the concepts such as “Low Carbon”, “Green”.

To a designer, these are not only the simple slogans. Therefore, we should make full use of our wisdom, utilize the natural power, ‘Let the nature conquer the nature’ and accelerate the consumption of the greenhouse gas so that we can control the effects of the greenhouse gas, hurricane and tsunami. We should cool the sea which will cause hurricane and tsunami and move at once!

My proposal is a unidirectional pipe in the ocean (shown in manuscript). By the vertical drift of the maglev cylinder inside the pipe, the nutrients and cold water in the deep sea can be transported to the shallow sea to stimulate the photosynthesis of the marine plants such as alga so that more greenhouse gases can be absorbed and the carbon-absorbing ability of the ocean is enhanced. Meanwhile the outlet water can accelerate the heat exchanging to reduce the atmosphere temperature. The energy in the whole process is supplied by two sources: sea wave and solar cells. For the sea wave, more turbulent the wave is, the colder the sea water pumped is, the higher the temperature drop of surface sea water is, and the stronger the ability of repressing the hurricane is. The solar cells whose directions are controlled by the microelectronic circuits are fixed on the whole system. Due to the two sources, no fuel will be consumed and no extra greenhouse gas will be generated. In this design, a new idea is proposed to alleviate and stop global warming so that the hurricane and tsunami can be depressed. By this active and innovative defensive measure, the loss can be reduced to the lowest level and the earth will become better.

Author Intro

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M.A. Design stratagem & Management.
Industrial Design, Academy of Art & Design, Tsinghua University.
2004.9 - 2008.6
B.E. Industrial Design, Dept. of Art and Design
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Main awards
2009 The Best Design Award, 2009 Annual Creative Talent Prize
2008 Champion, 1st International Industrial Day Design Competition
2008 2nd Prize, PHILIPS future lighting engineering design competition
2007 Golden prize, East Asian Architecture & Urban Design Competition
2007 Golden Prize, Japan AISIN Co. Electric wheelchair theme design competition
2007 Bronze Prize, The 20th Koizumi International Lighting Design Competition