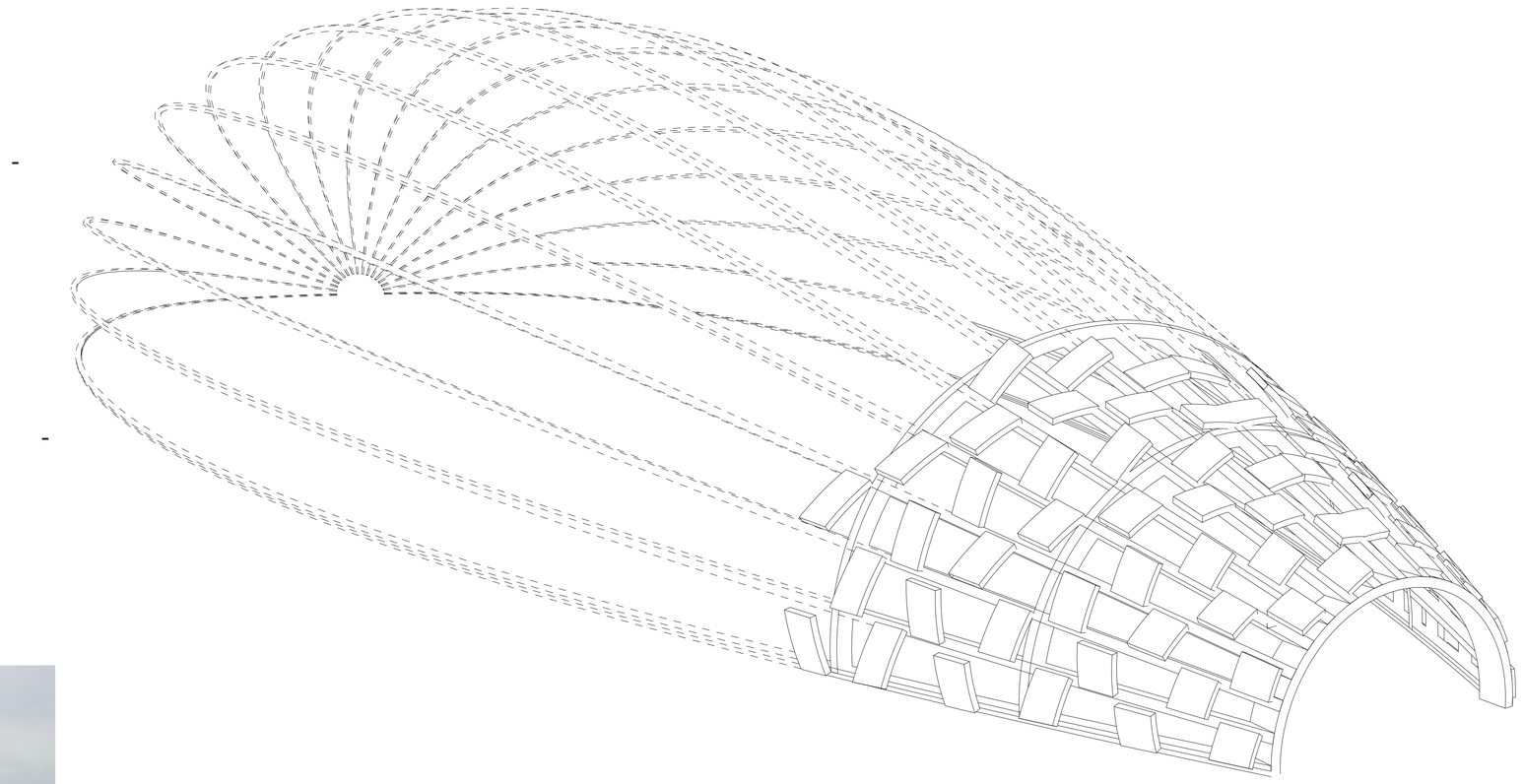
LAND ART GEENERATOR INITIATIVE
COMPETION 2014
SITE : Refshaleøen - COPENHAGEN

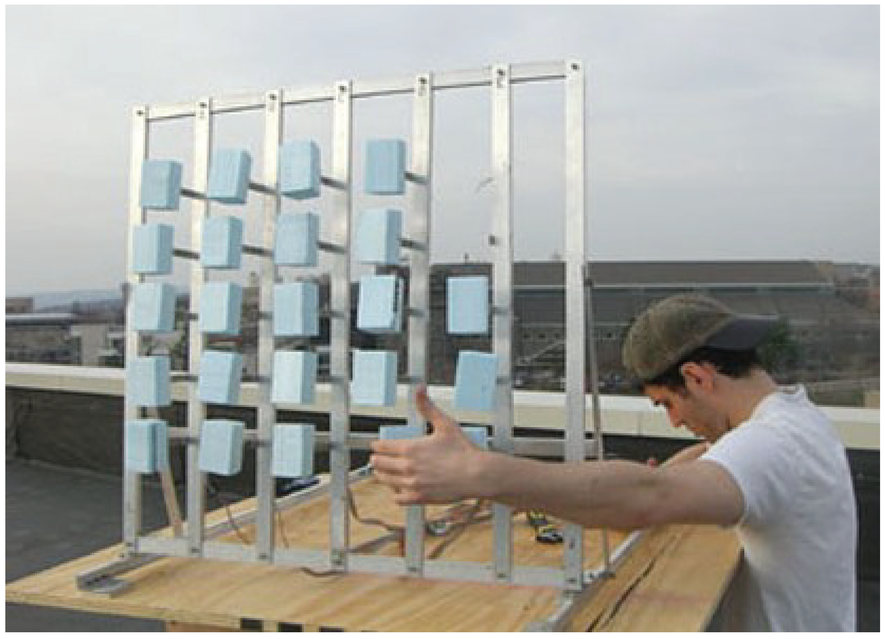
- LIVING STRUCTURE -

INSPIRATION : VIBRO-WIND

Nowdays, the windmil exploits effectively the energy of the wind. However, those are more efficient and profitable in areas very exposed to the wind and generates often noise nuisances.

The piezoelectricity allows a different exploitation of the wind: by using the vibrations. Francis moon, a mechanic engineer teacher invented with his students a new type of electric generator called "vibro-wind" that uses vibrations conducted by the wind to generate electricity with a small cost and no noise nuisance. The system consists of a board on which is applied blocks of polystyrene linked to transducer piezoelectric. When the wind blows onto the polyester blocks, the vibrations generated then transform into electricity by the piezoelectric micro generators in polymer ceramics. In the areas with less wind, such as urban areas, the vibro wind could be more cost effective rather than windmills.





SYSTEME

The installation featured, presents itself as a shape of metallic structure of it's polyesteren blocks exploits the vibrations conducted by the wind in order to generate electricity. Some of the polyesteren blocks are static on the metallic bow in order to catch more effectively the best wind oscilations. The boards are linked to the batteries underground and could catch from 50 to 100 W/m2 each.

Approximateley a thousand polyesteren blocks are present on this structure and could potentially allow a better public illumination for a lot more homes.