CATCH A WAVE

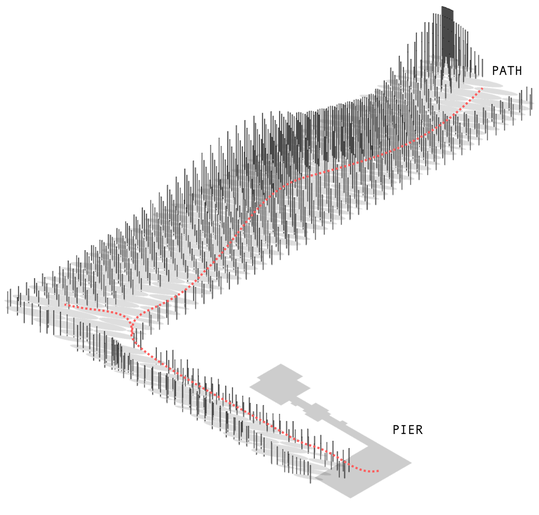
CONSTRUCTIVE ASPECTS

The main construction are hydraulic stainless steel frames whose position is changeable in the dependece of water level. The frames are fixed under the water with pylons into the ground. Inbetween the carrying constructions are the boards which have a rigid polyurethane foam core with an outer shell of fiberglass cloth and polyester. Inside of the core of the board are the batteries which accumulate the energy which is being produced. The energy is being both produced by the movement of boards and stalks which are positioned on the shell of the boards. While the stalks above the water translate the power of wind into electric energy, the boards and stalks under the water translate the power of water.

The hydraulic frames enable the movement of the frames according to the low and high tide which enables creation of several scenarios. As the ocean is moving so are the boards also forming different paths inbetween stalks for the visitors. There are 320 boards with 2670 stalks which form water farm that produces 274kw/h energy. Each stalk is surrounded with many piezoelectric discs that are positioned inbetween rigid backup plates. These piezoelectric structures compress and stretch when moved in any direction. Each motion is being converted electricity without help of mechanical generators, transmissions or propellors. They can captur the energy from a single breeze of wind by the continuing oscillation of this inverted pendulum after the breeze disapeaers.

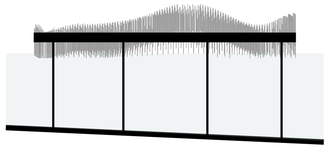
Small part of the electricity which is being produced is used for led lamps inside of the stalks which illuminate during the whole day and make the installation even more attractive.

MOVEMENT

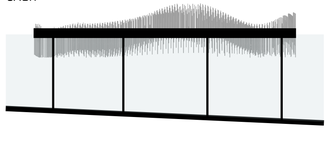


SCENTARIOS

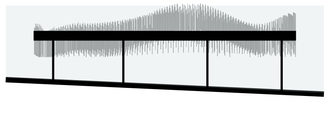
STORM



CALM



SPECIAL EVENTS



SKETCH