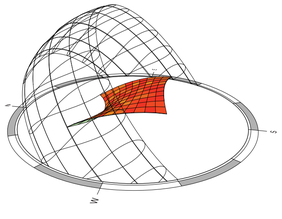
ENERGY

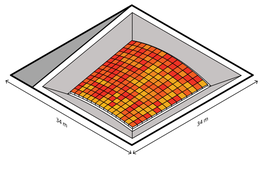
A.SOLAR

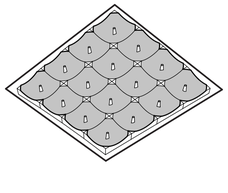
A curved grid is calculated for maximum annual average radiation, a concentrator photovoltaic system is then placed on the grid, with one directional axis rotation tracker.
The grids are lifted 15m above ground level on a steel structure system.
Panels are also placed on a rotating louver system covering the crossing bridge.

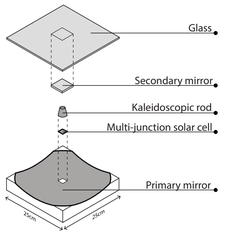
Each array has 4x4 panels and dimensions of 1.2x1.2 m.
Each panel consists of a large mirror that is used to collect direct sunlight and then focus the reflected light onto a smaller secondary mirror. The secondary mirror then redirects the reflected light into a glass prism, channeling the sunlight onto a triple multi-junction photovoltaic chip.

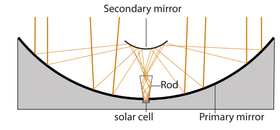
System output is 1000 W/m^2
The panels spread over an area of 3563 m^2 with an efficency of 43%
Estimated capacity of the solar system = 3563x0.43x6.84x1000x0.9 = 9.43 MW
and an annual of 3442 MW



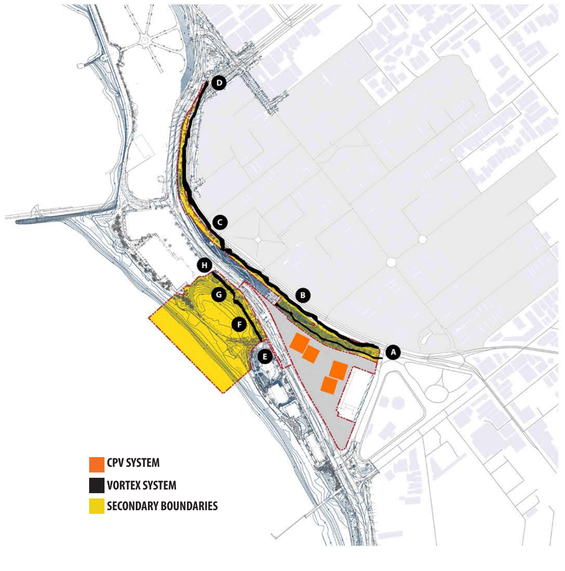








off axis rays reflect to form a small focal point away from the center of the rod.
the rays then reflect of the side of the rod to reach the cell.



B. WIND

CONTEXT

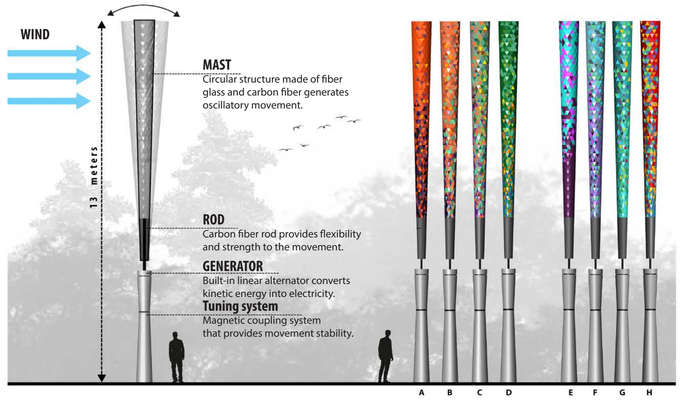
the vortex modules act as a rhythmic visual reference between the site, catani gardens, and sea baths.
the directional color maps are applied over the mast creating a smooth color transition between the site and the surrounding locations.

VORTEX ARRAY

An array of 520 vortex systems spread across the edges of the primary and the secondary boundaries of the project.
this system is cost effective and environmental friendly.

ENERGY

each vortex has a capacity to produce 4KW of energy.
the array capacity = 520x2KW= 2MW.
and an annual of 730 MW



DIRECTIONAL COLOR MAPS