

Ubiquitous Cities SOCOTRA TREE



Wind Breaker

Negates a majority of the strong winds as it acts as a natural wind barrier and also harnesses this wind to rotate the turbine

Outdoor working space

Acts as a place for students and other visitors to study and work comfortably in the comfort of the parks environment

Source of Attraction

A memorable attraction that creates a friendly environment and acts as a place for social gathering.

Renewable energy generator

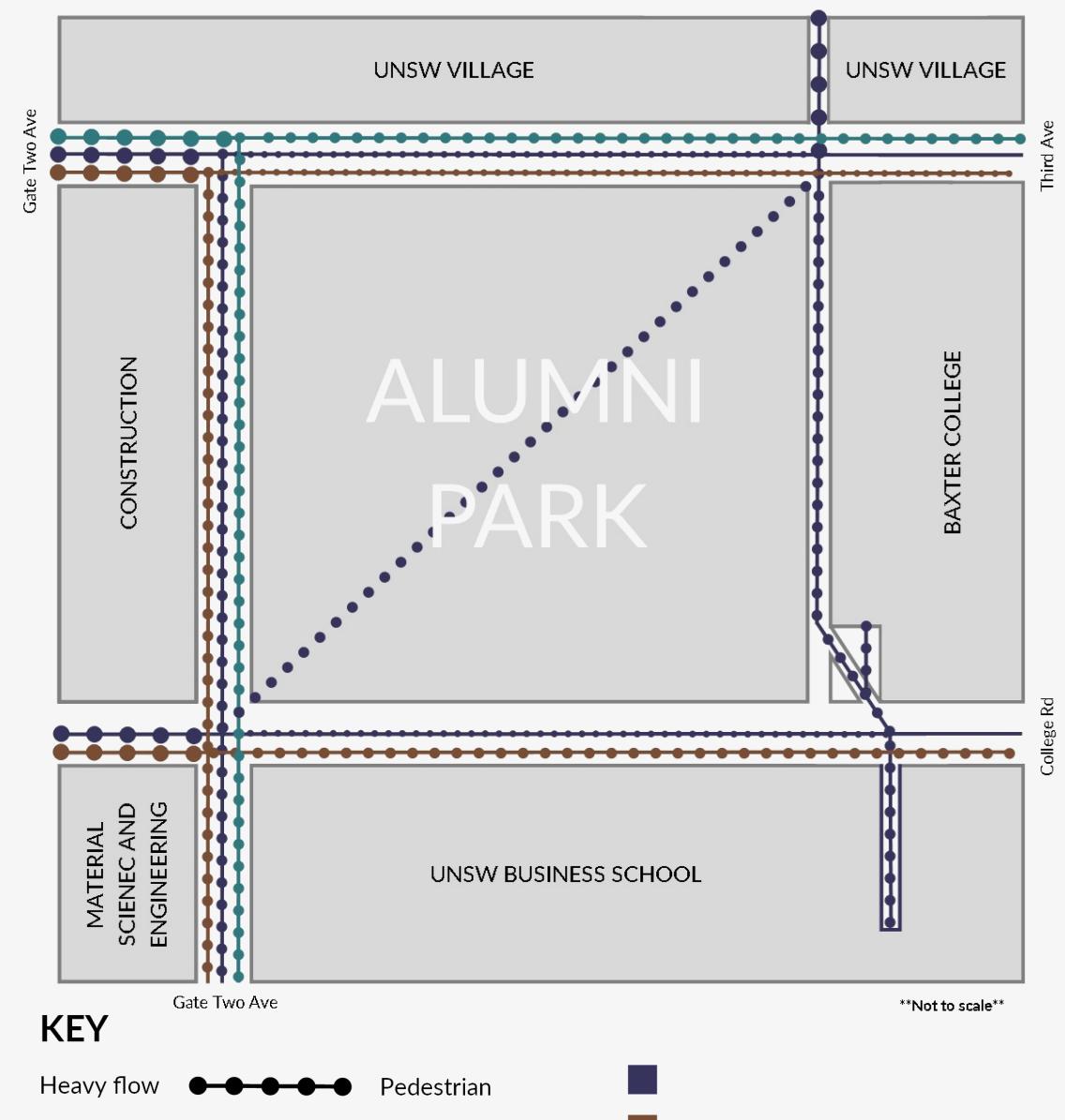
Generates renewable energy to power the lights and PowerPoints located on its exterior façade.

A variety of precedents were examined

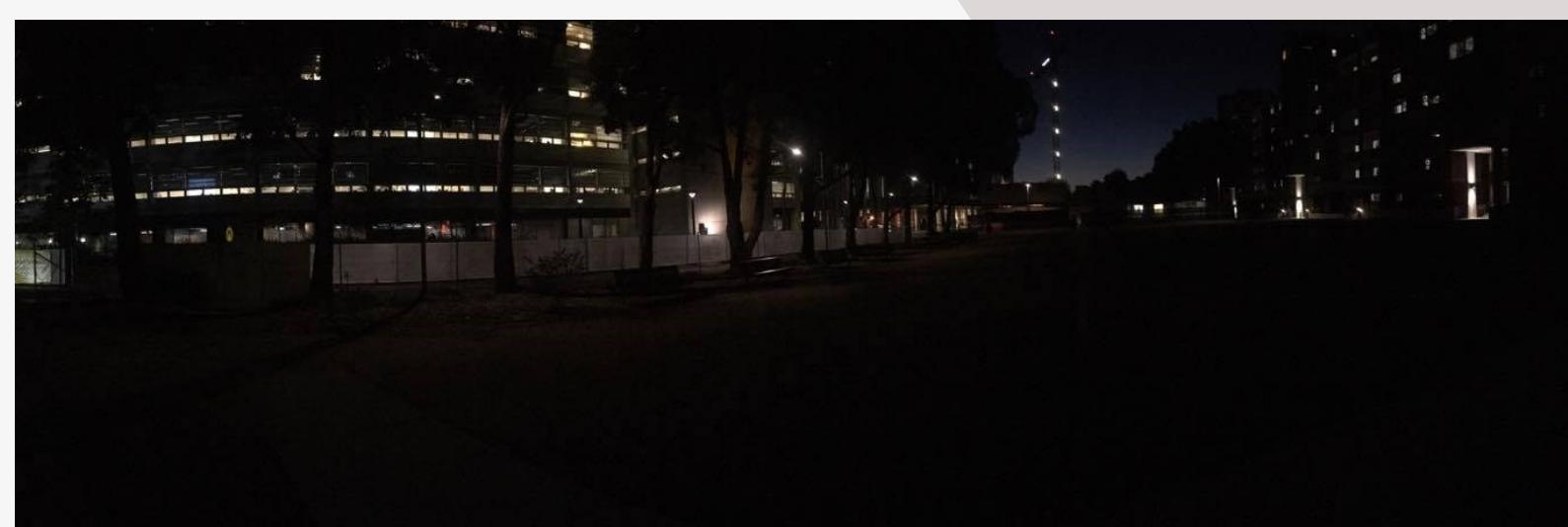


Proposed placements of the Socotra Tree

Alumni park is full of problems that need to be addressed as soon as possible in order to maintain the UNSW image whilst also inviting students, visitors and lecturers to a safe and welcoming environment. The precinct houses many issues such as no/limited lighting and an unequipped area for studying purposes. Larger more prevalent issues such as the wind tunnel effect passing through this strip of park land and its dull and unevocative atmosphere. All these issues would be addressed through the implementation of the project: Socotra Tree as it has been meticulously designed as to ensure that these issues are removed, and the precinct is emphatically enhanced.



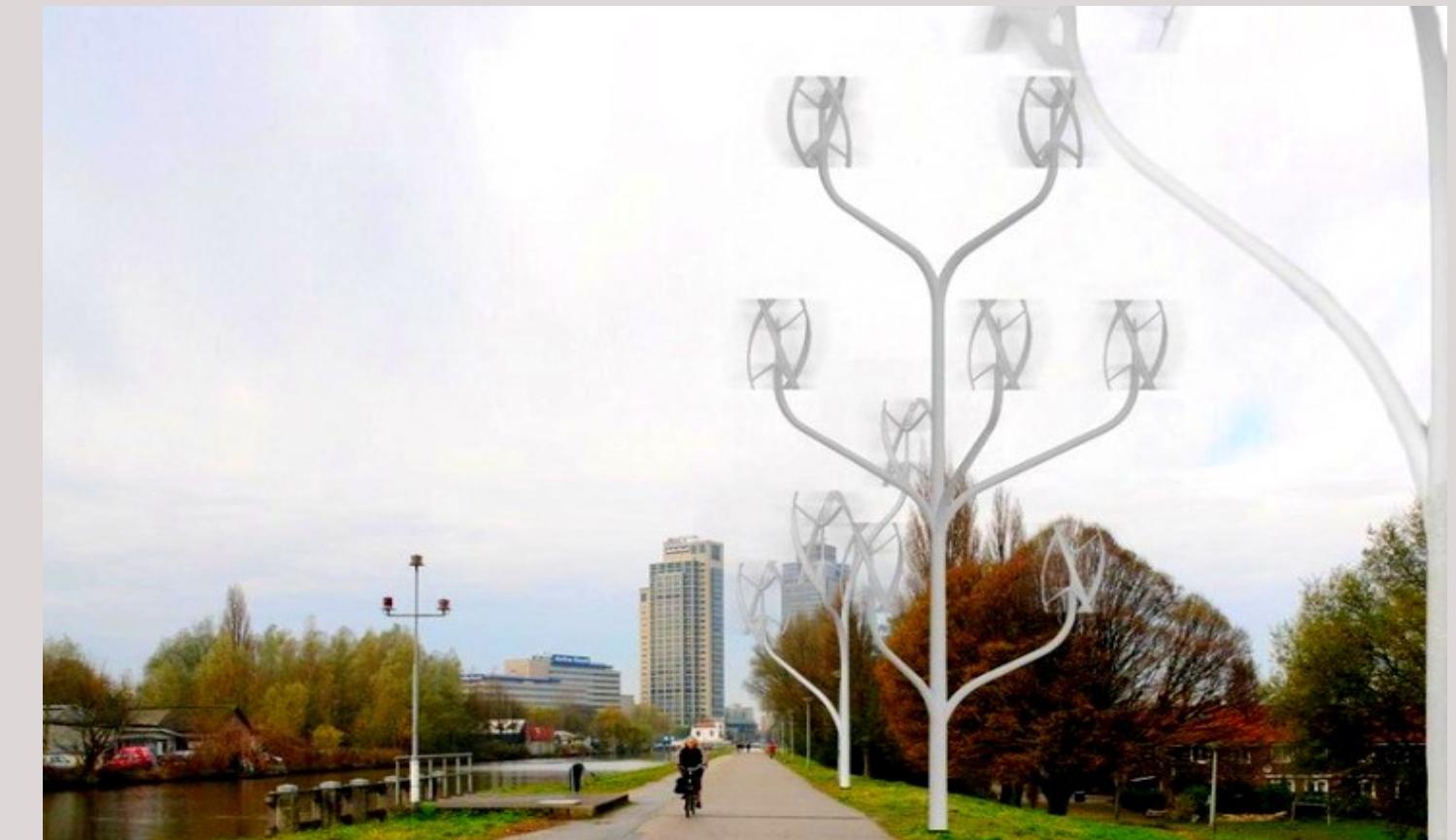
Movement analysis of various forms through the park



Panorama of day (top) and night (bottom) Alumni Park as of 2017



"Wind Tree" 2016, France

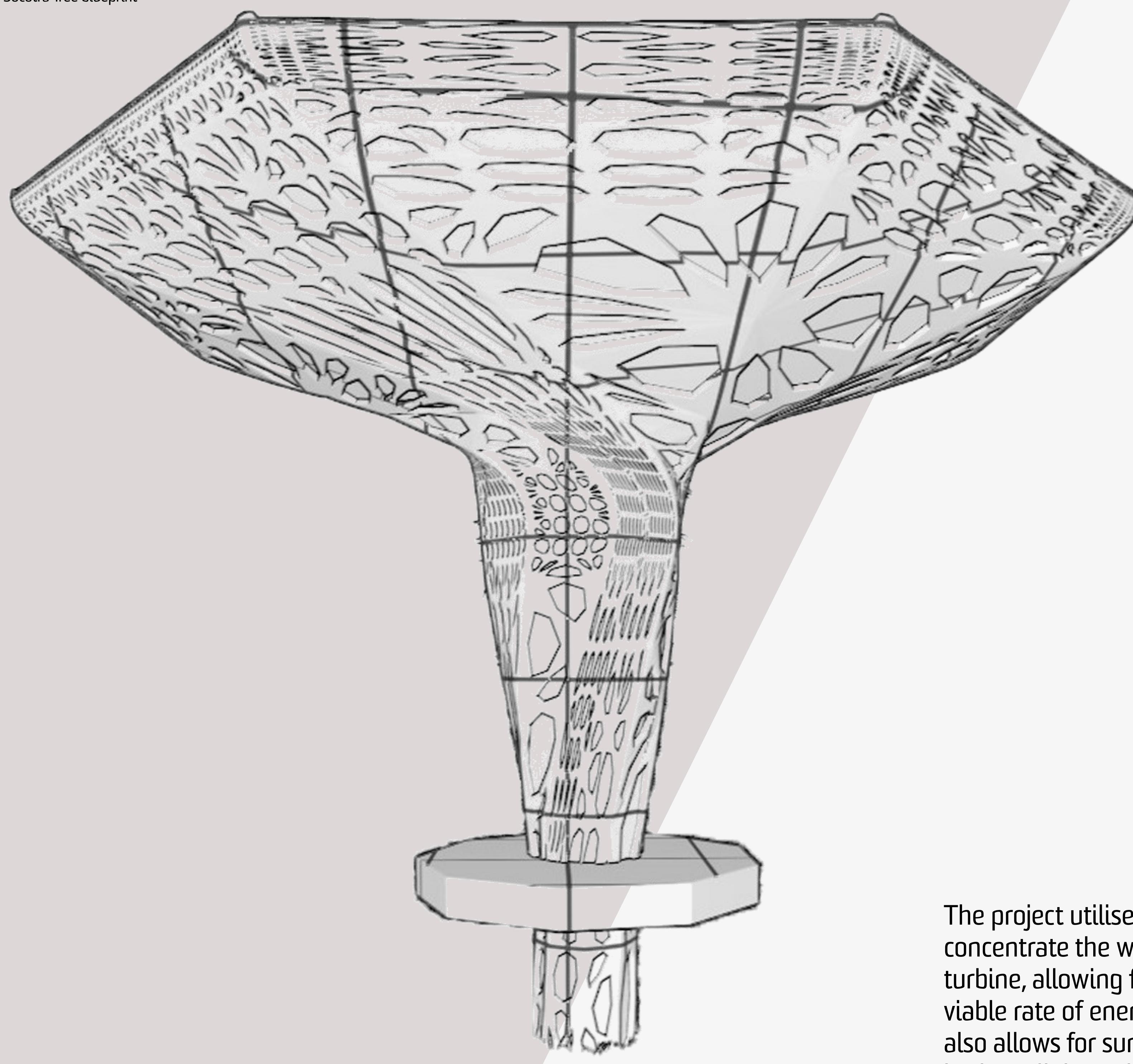


"Power Flower" 2011, Netherlands

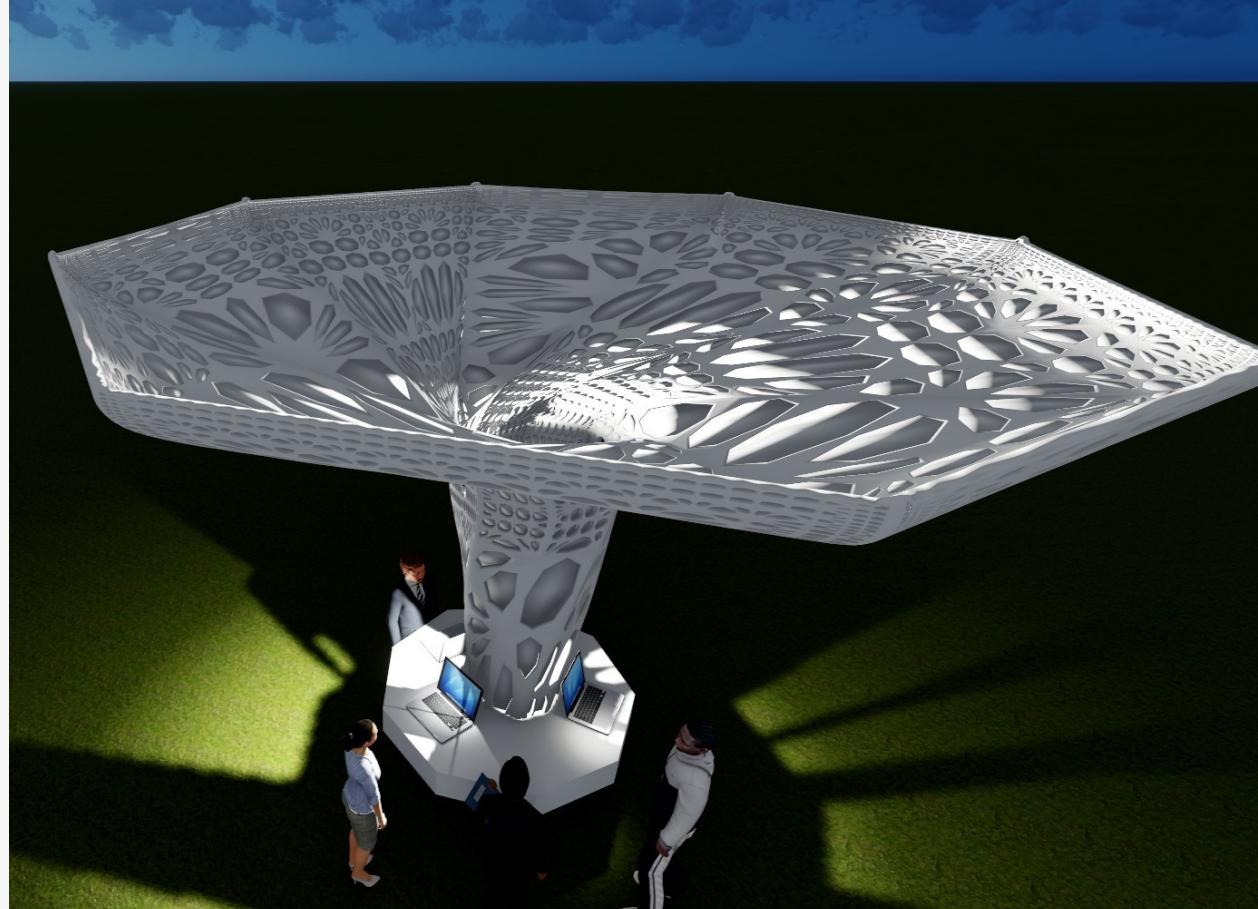
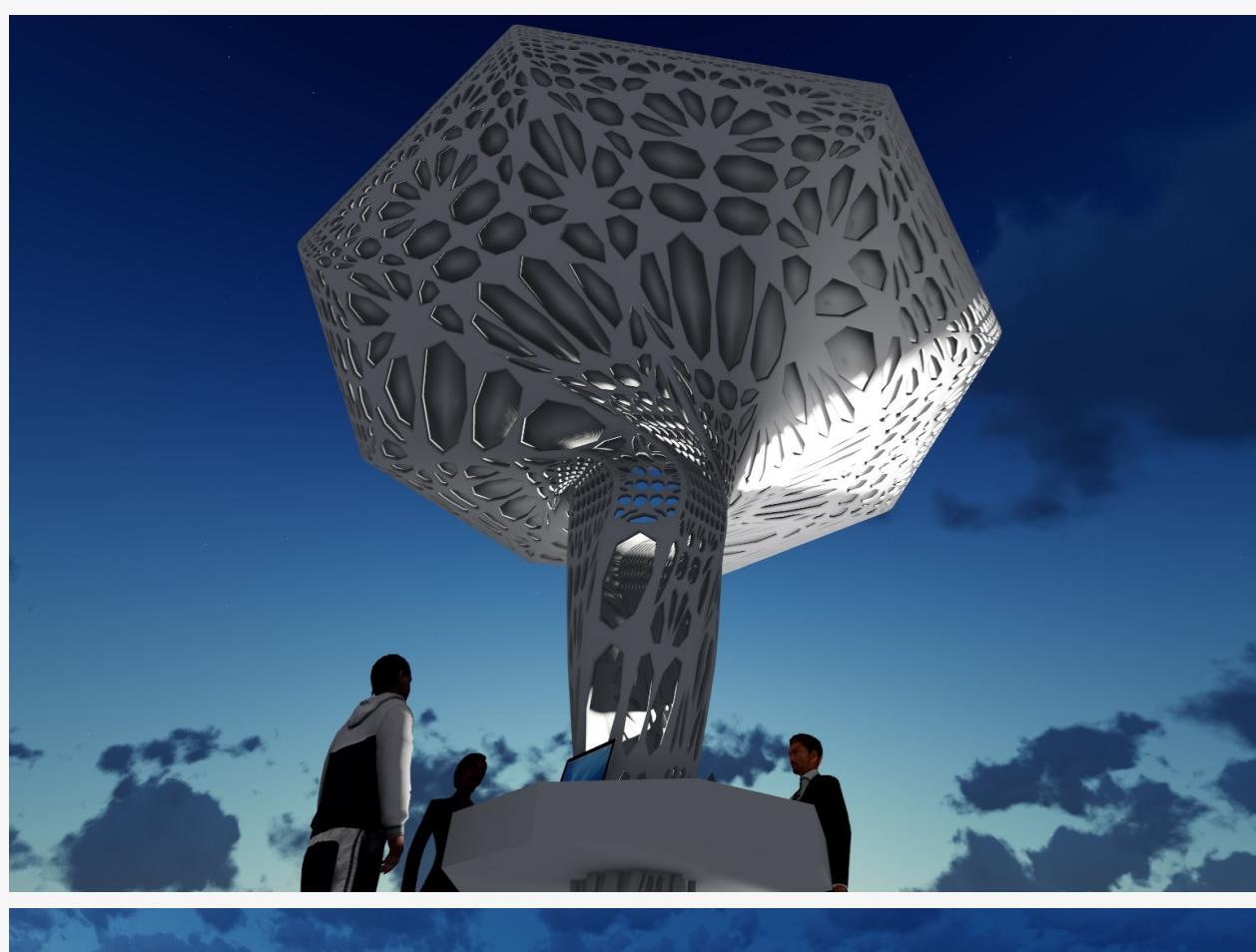
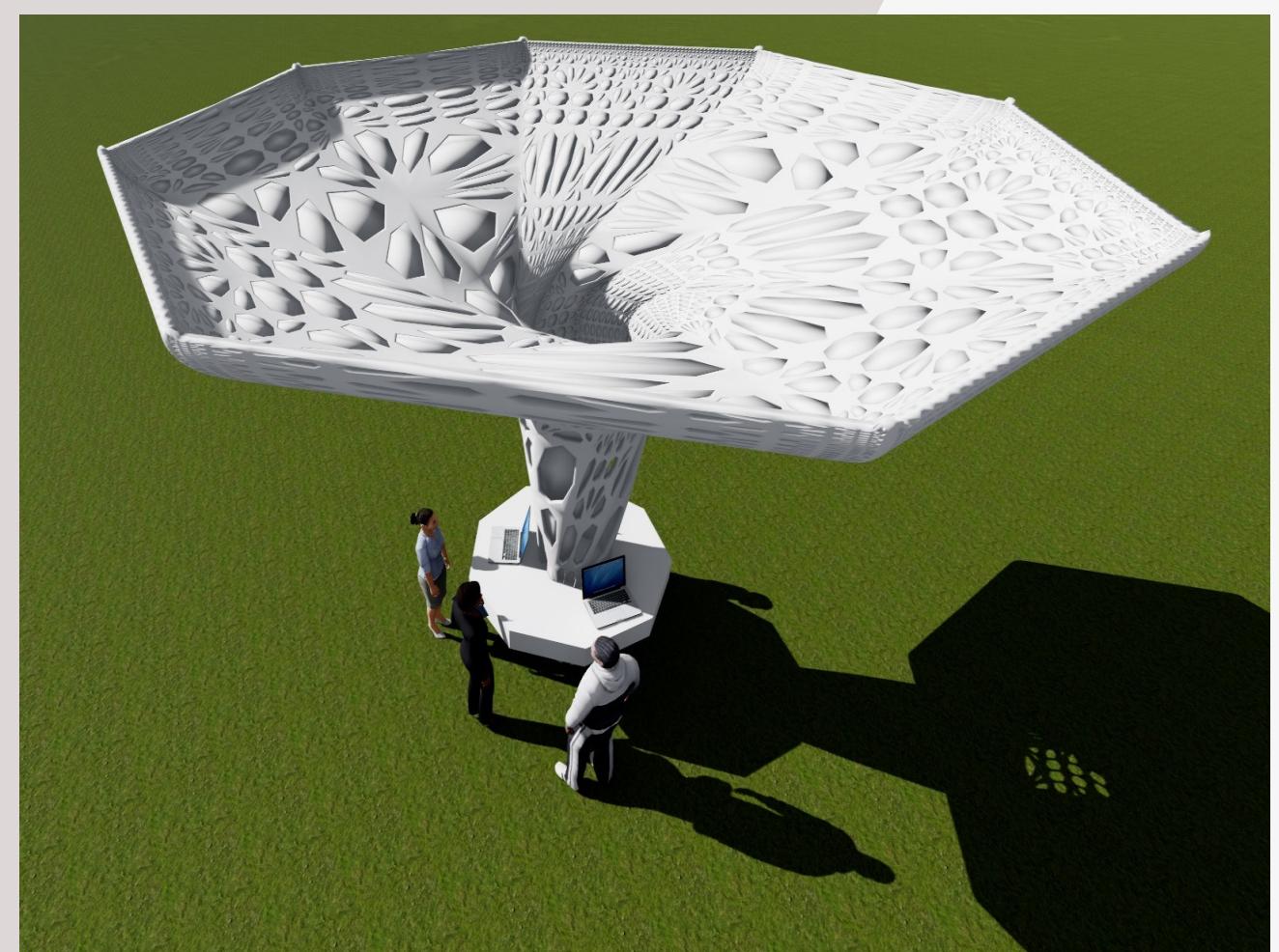


"Catching wind power generator." 2012, United States





Final design renders



The project utilises a complex mesh to guide and concentrate the wind from the precinct toward the turbine, allowing for an efficient and economically viable rate of energy production. The mesh structure also allows for sun to permeate the edifice, providing both sunlight and shade. The construction of a solid bench allows individuals or groups of people to utilise it as a standing work space. Furthermore, the structure tackles the issue of no lights throughout the park with the use of multiple LED's uniformly scattered throughout the building. Lights are on the structures mesh and secured on the exterior allowing for lighting during the night and when individuals use it to read, write or use electronic devices. Only white and yellow lights are used as studies show that white lights improve productivity whilst yellow lights reduce eye strain. The dial secured on the exterior allows for the individuals to alter the luminosity of the lights to suite there needs.



Workspace lighting dial with USB ports and powerpoints

Additionally, to address the wind tunnel effect the structures large size and strategic placing would negate a majority of the strong wind forces through the precinct as its redirected and used to turn the turbine. This power would also be stored and used to charge USB ports and powerpoints.

All in all, the structure should alleviate the problems within the precinct whilst heightening the user experience and allowing for a safer, more appealing and memorable environment for all visitors to the precinct.