

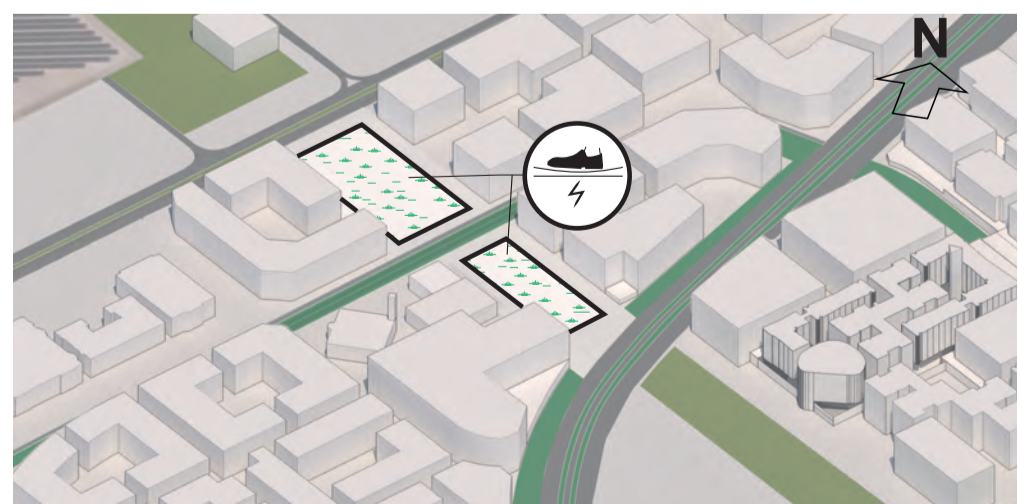
RENEWABLE OASIS

Renewable Oasis proposes a forest of solar and wind energy harvesting spherical canopies that provides shaded spaces for current and future Masdar inhabitants and visitors to take a breath, meet and discover the beauty of renewable energy and its impact on the planet.

Its delicate structure is inspired by Arabic geometrical patterns and supports the energy harvesting skin, which filters the sunlight. The movement of the solar leaves, which filters the sunlight. The movement of the solar leaves caused by the slightest breeze offers the visitor the experience of a choreographed shower of light and shadow that together with the landscape creates an oasis and a gathering place for Masdar's innovative community.

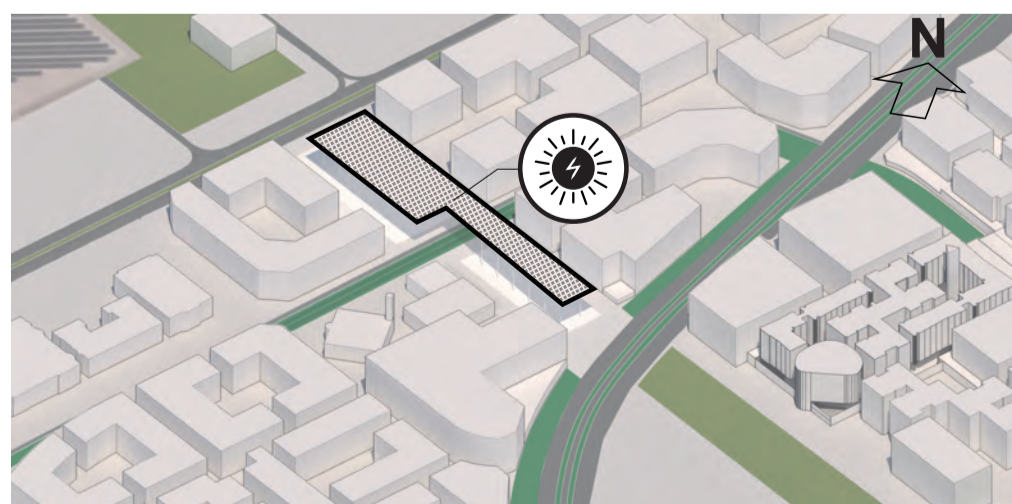


CONCEPT NARRATIVE



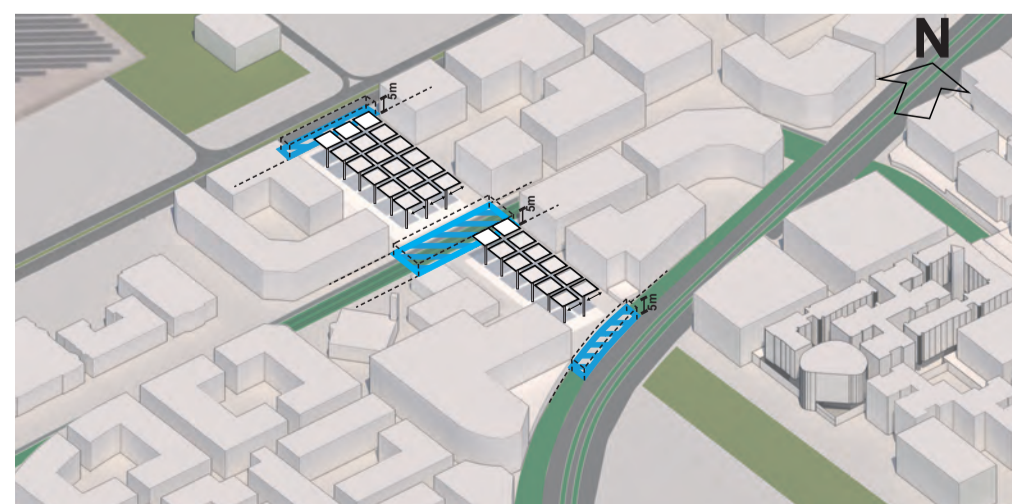
Site

- Floor build up ready for future installation of technology that generates electricity from footsteps, once price becomes competitive
- Provides vegetated landscape
- Provides floor lighting



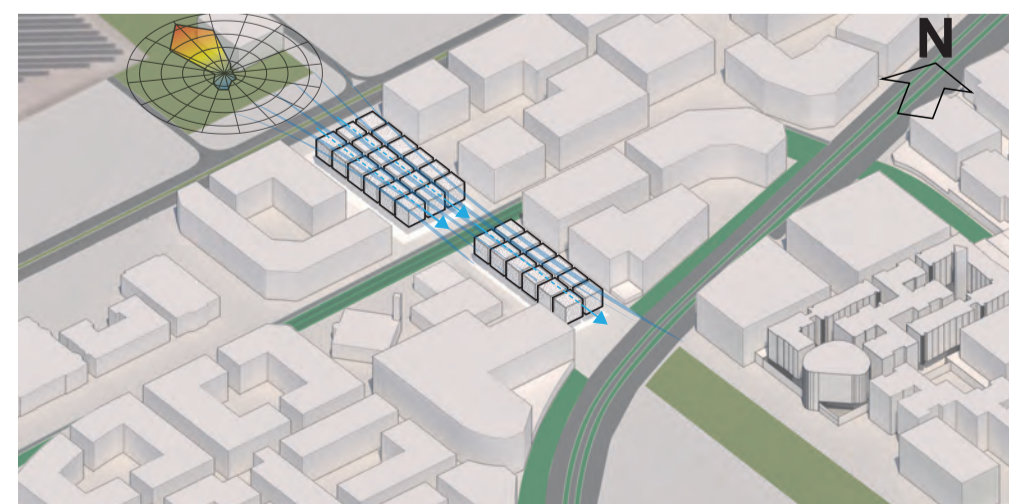
Canopy

- Solar canopy
- Provides shaded spaces



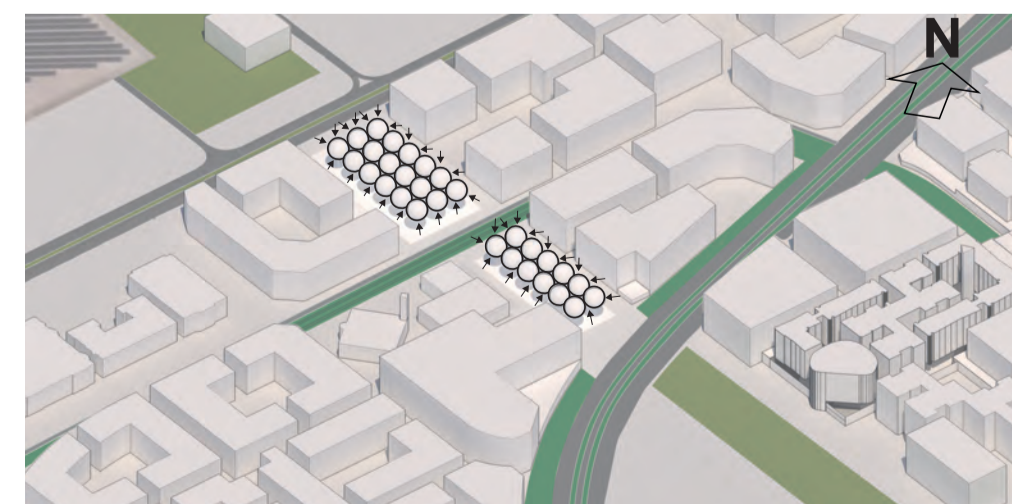
Canopy broken down into units

- Adapts to site constraints
- Provides structural efficiency
- Provides construction sequencing flexibility
- Provides increased scalability



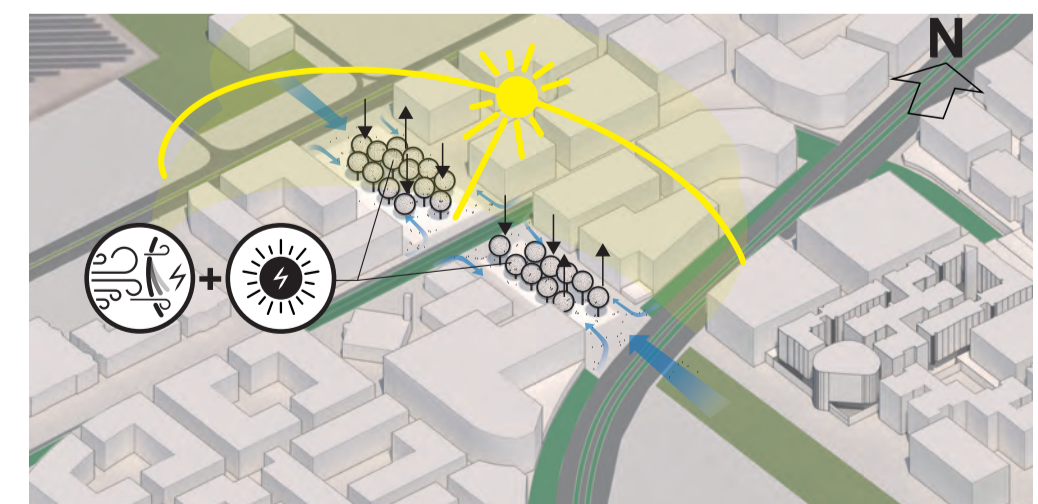
Canopy units extruded to volumes

- Permeable volumes exploit the prevailing wind and venturi effect
- Provides solar filter and layered shadows
- Facilitates natural ventilation



Canopy cubes optimized to spheres

- Sphere has the highest volume to surface area ratio
- Efficient use of material surface area
- Isotropic properties of sphere allow for easier adaptation to site and maximizes exposure to climate conditions



Layout and height adjustment

- Layout adjustment to open up spaces to visitor entry points
- Height adjustment to create spatial diversity
- Height adjustment to maximize exposure to sun path
- Skin generates electricity from wind and solar energy