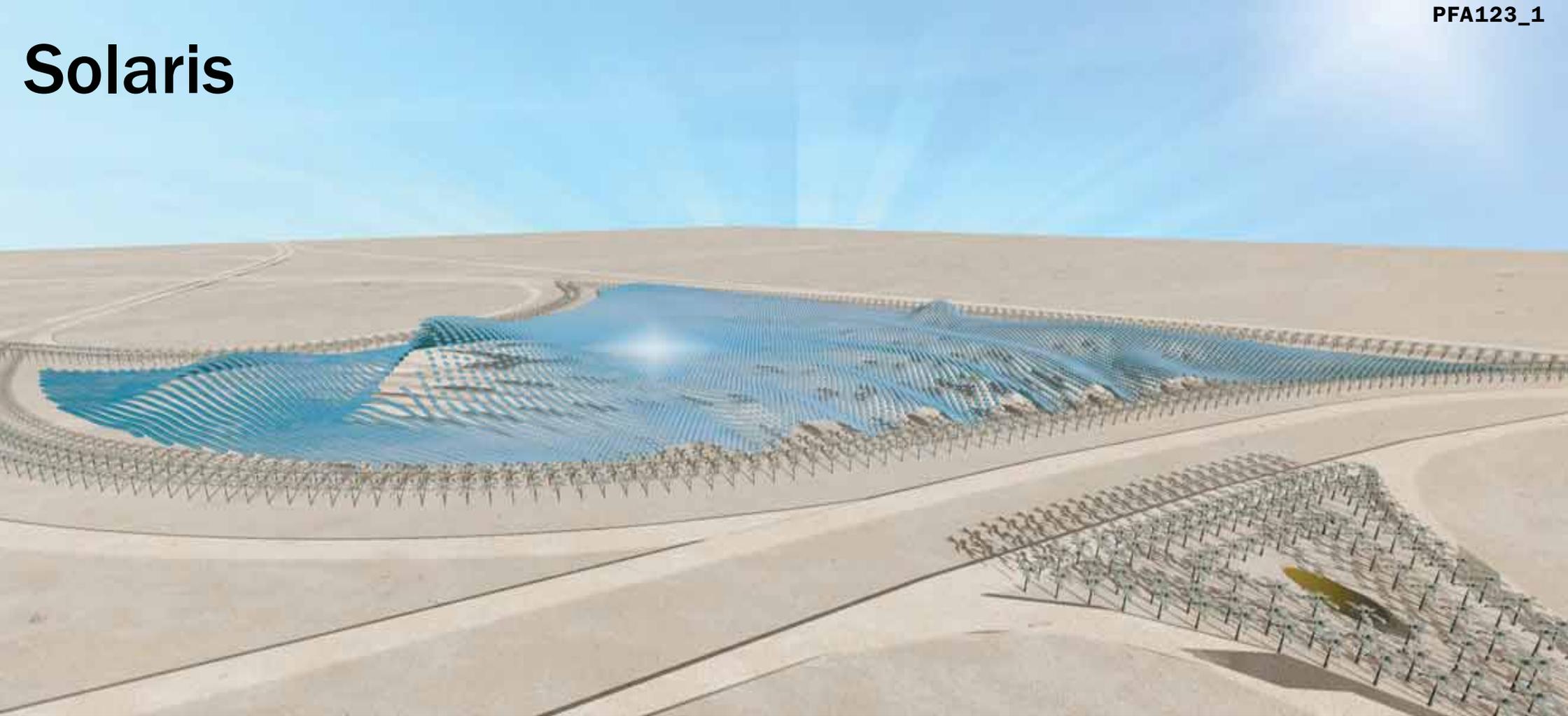
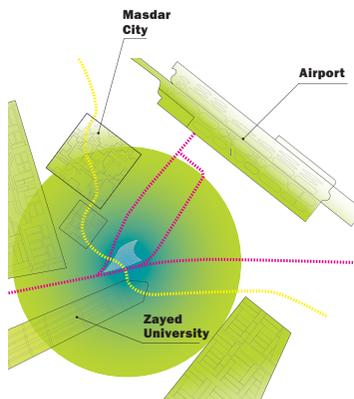


Solaris



SPACE AND LIGHT OASIS

Critically engaging the emergent Abu Dhabi context of Masdar City, Zayed University and other tabula rasa territories, our project proposes an antidote to the frenetic future-scape internationalism of the rapidly developing Arabian coast. Along a path connecting Masdar City and Zayed University, a low slung, energy producing sensitive field beckons the public sphere to engage and connect with light, atmosphere, and time.



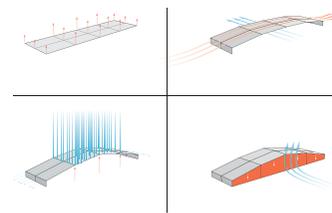
A solar canopy that drapes the entire site, our proposal acts as landscape and container. Highly attuned and responsive to its desert environment, SOLARIS is a sensitive tissue.

PERFORMATIVE TENT

Our proposal for the Land Art Generator Initiative on the Masdar adjacent site is conceived as a draping fabric. Like a magic carpet, the Bedouin nomads' highly performative tent dwellings are responsive and adaptive to the desert extremities. Made from the hair of their sustenance, the black matted surfaces of their tents act as environmental modulators. Our project develops analogous behaviors responding to elemental forces.



Bedouin "black tent"



Shape and surface are highly responsive to climate

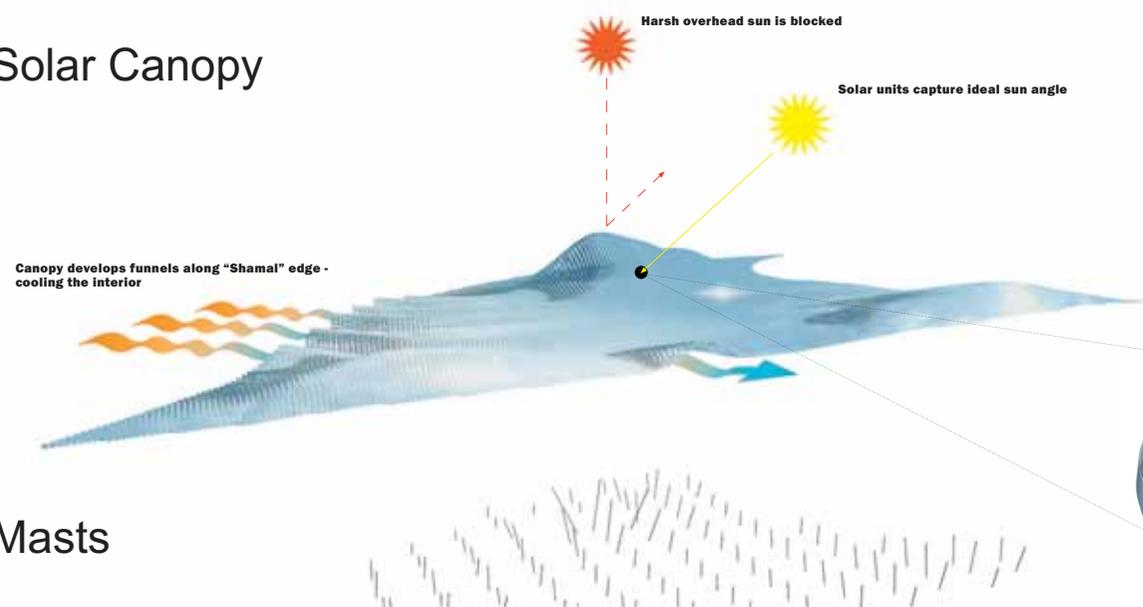
SOLAR MODULE

Like a field of sunflowers, intelligent solar balloons form a veil that tracks the sun. The solar units undulate across the site shaping a deeply considered pattern of responses to wind, sun, night sky and pathways. Working collaboratively with **Cool Earth**, producers of a new breed of high concentration solar modules, our project deploys an ingenious new breed of solar technology. With close to 25,000 solar cells, the Canopy will produce on average - 73,000 megawatts per year - enough to power the country of Chad over a year.



Cool Earth: inflatable solar module

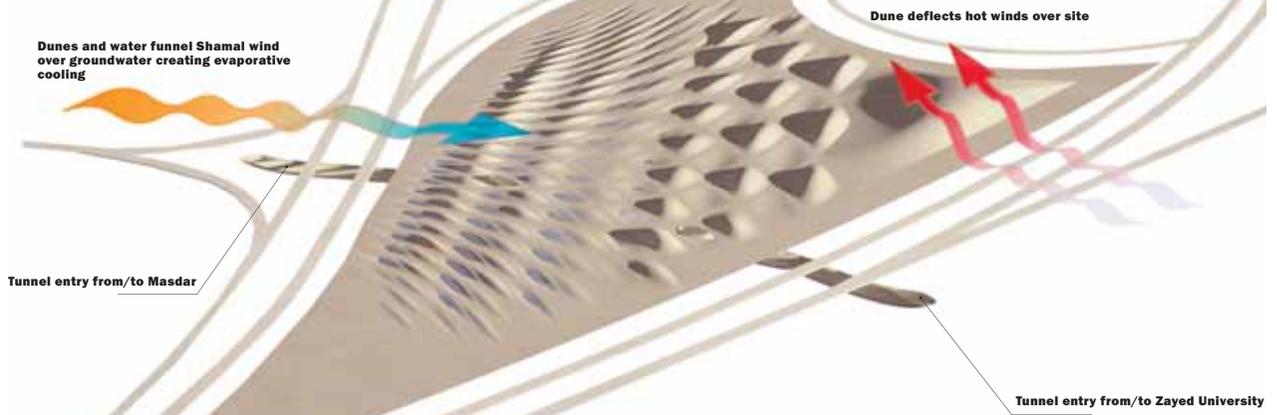
Solar Canopy



Masts

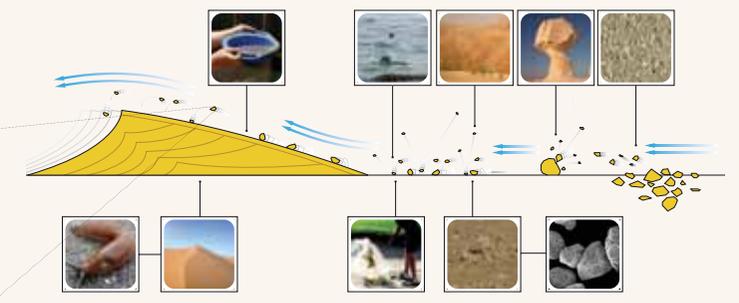
Structural masts support a delicate cable net that drapes into natural catenary forms

Groundplane



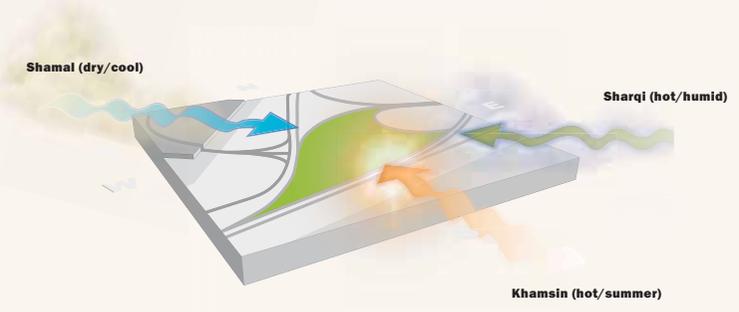
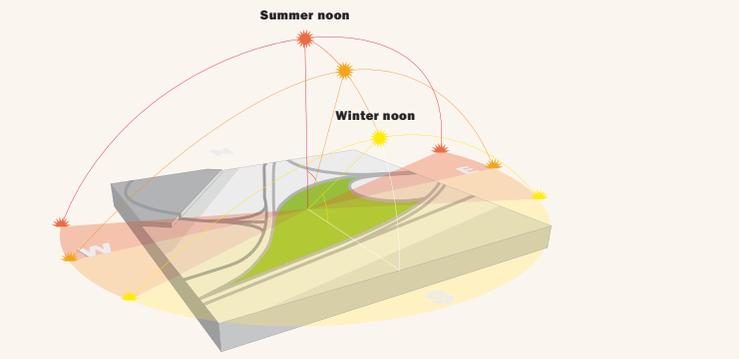
SAND TO DUNE

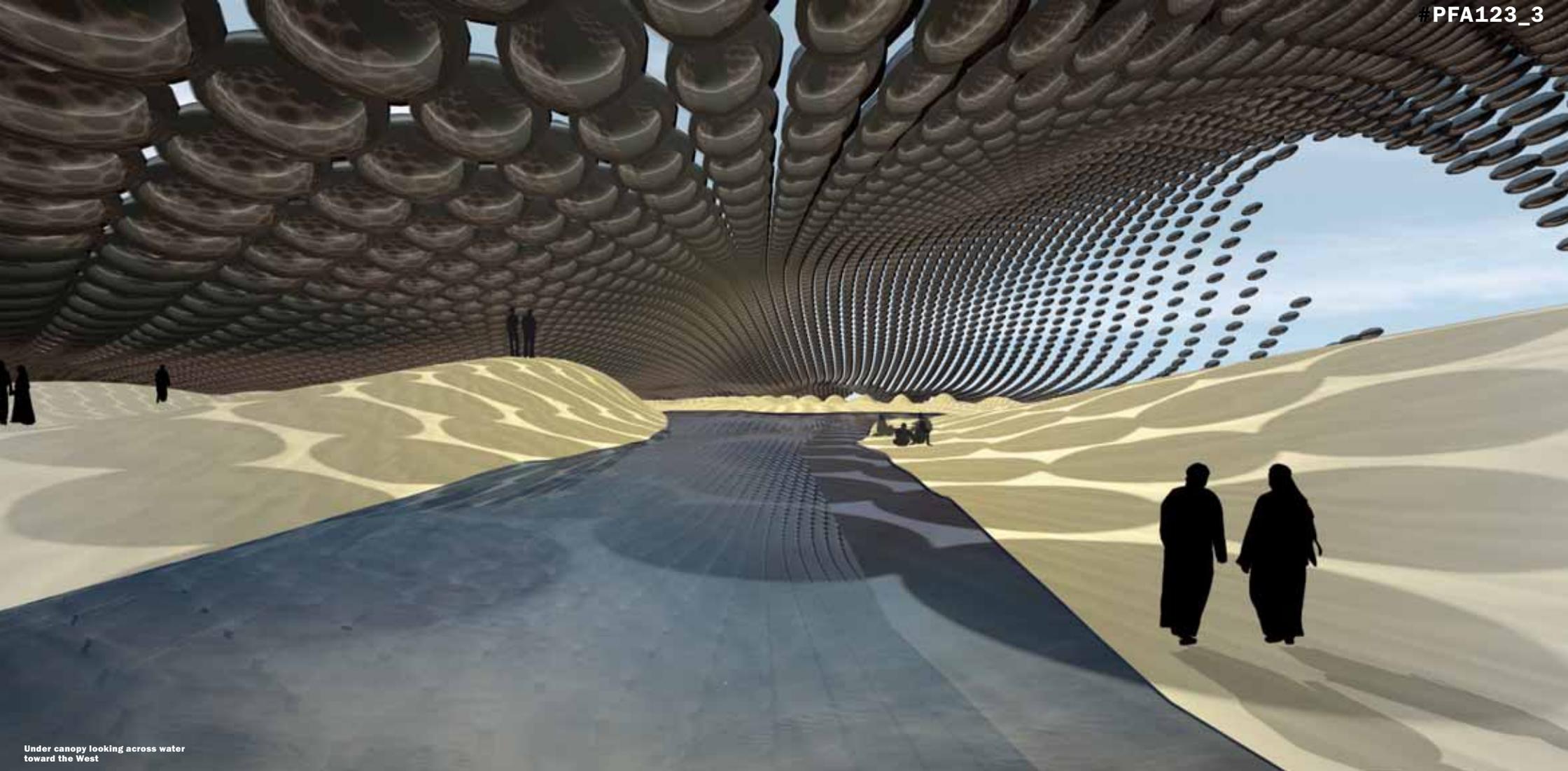
The formation of dunes is a "power by numbers" dance between particles of sand and wind where quantity achieves an overall coherent quality. The dunes are dynamic organisms that never have a fixed form and travel in packs as mobile landscapes. The solar module in our proposal becomes a surrogate particle of sand - accumulating into numbers that allow a larger dynamic figure to emerge.



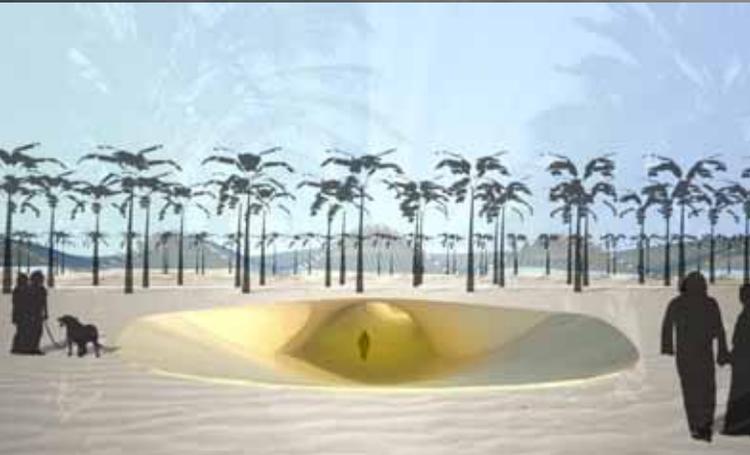
SUN AND WIND

Developing localized environmental responses, the field of solar units densifies in areas to keep Summer sun out while creating a more porous pattern where Winter sun is allowed to penetrate the interior. Winds - both good and bad - are mitigated as well. The Shamal brings dry wind that lasts the year round and supplies a powerful cooling agent when funneled correctly. This wind enters the Northwestern side of the project through an undulating edge that directs air across shallow pools of groundwater toward the interior realm. The Sharqi, which is a hot humid Summer wind, is blocked along the Southeastern edge of the site with shaped sand acting as a land barrier and deflector.





Under canopy looking across water toward the West



Tunnel entry from/to Masdar City through date palm grove



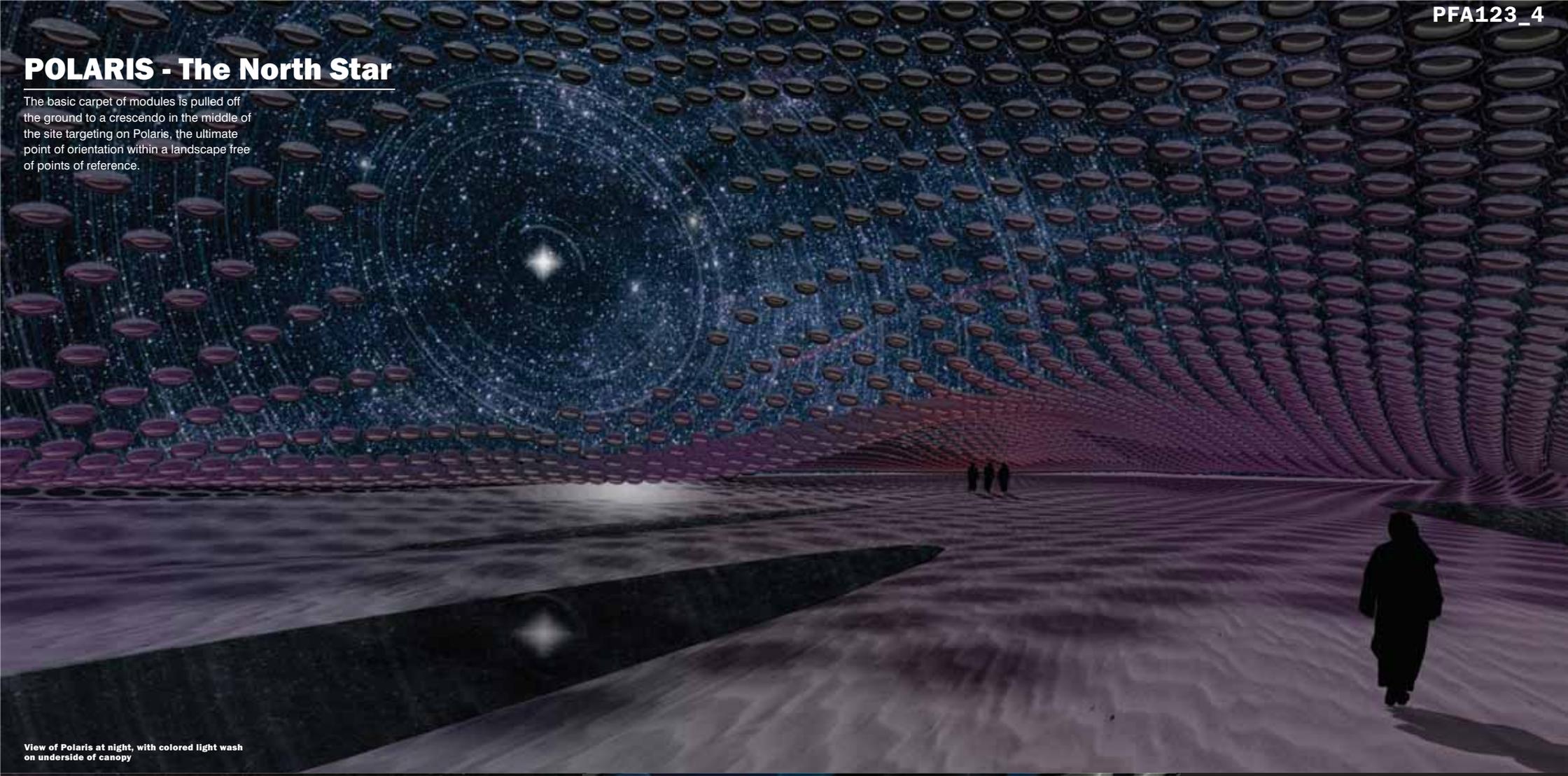
Within tunnel between Masdar and Solar Canopy



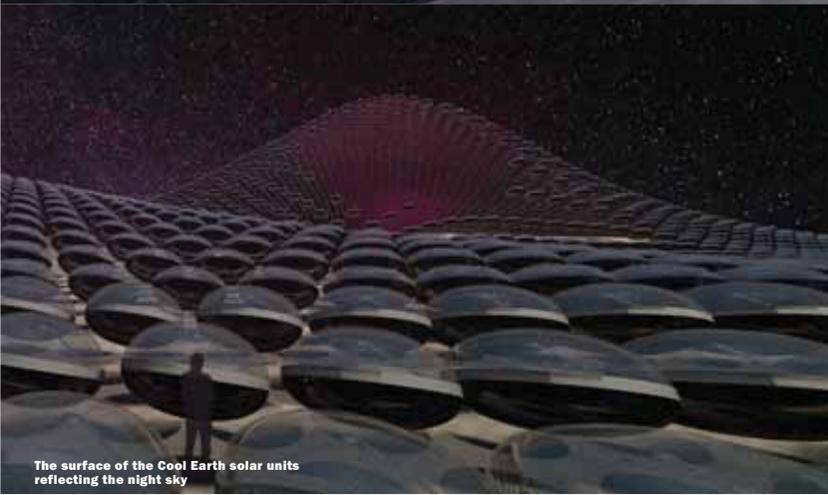
Emerging from tunnel passage into canopy space

POLARIS - The North Star

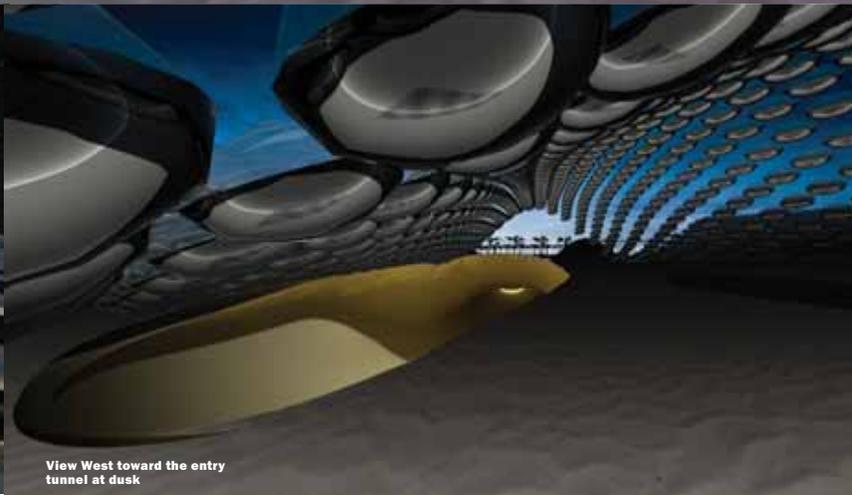
The basic carpet of modules is pulled off the ground to a crescendo in the middle of the site targeting on Polaris, the ultimate point of orientation within a landscape free of points of reference.



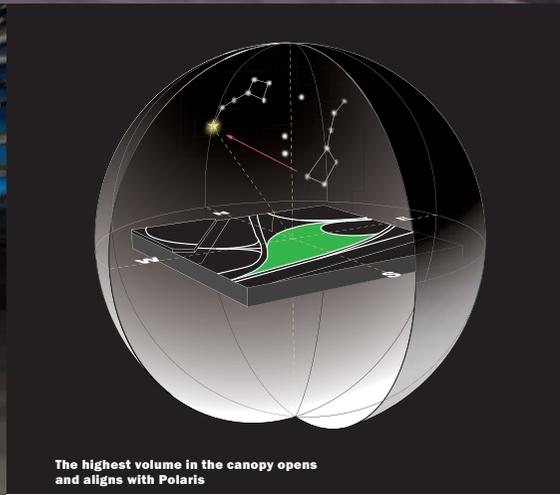
View of Polaris at night, with colored light wash on underside of canopy



The surface of the Cool Earth solar units reflecting the night sky



View West toward the entry tunnel at dusk



The highest volume in the canopy opens and aligns with Polaris