

# THE SOLAR SEESAW

## *An Active Communal Participatory Approach in Shaping Landscape and Producing Energy through kinetic structure*

The local vernacular heritage that has flourished in the Sahara and desert oasis resonates with the climate responsiveness of the biodiversity and the palm trees orchards that thrived in these natural oasis.

The intervention aspires to reecho the vibrant communal activeness that these communities have long enjoyed in the natural oases. The design entails a vertical kinetic Solar Seesaw inspired from the palm tree foliage, spines, structure and intricate geometry and patterns.

The seesaws consist of a series of biomimetic flexible photovoltaic CIGS solar cells fin patterns that sprout as leaf fronds and naturally bend through the laminated polymers. As in desert oases, these kinetic orchards are designed to create and respond to a vibrant communal center within a morphing landscape and a pleasant outdoor micro climate.

Just like palm foliage, the designed leaves perpetually collect solar energy, filtrate solar radiation, diffuse light rays like a Mashrabiya, vibrate under the wind and create a twinkling of light and shadows underneath. These subtle movements along the site, evoke multiple experiences of peacefulness, relaxation and communal embracement that dwellers have historically enjoyed under the palm canopies amid natural oasis.

