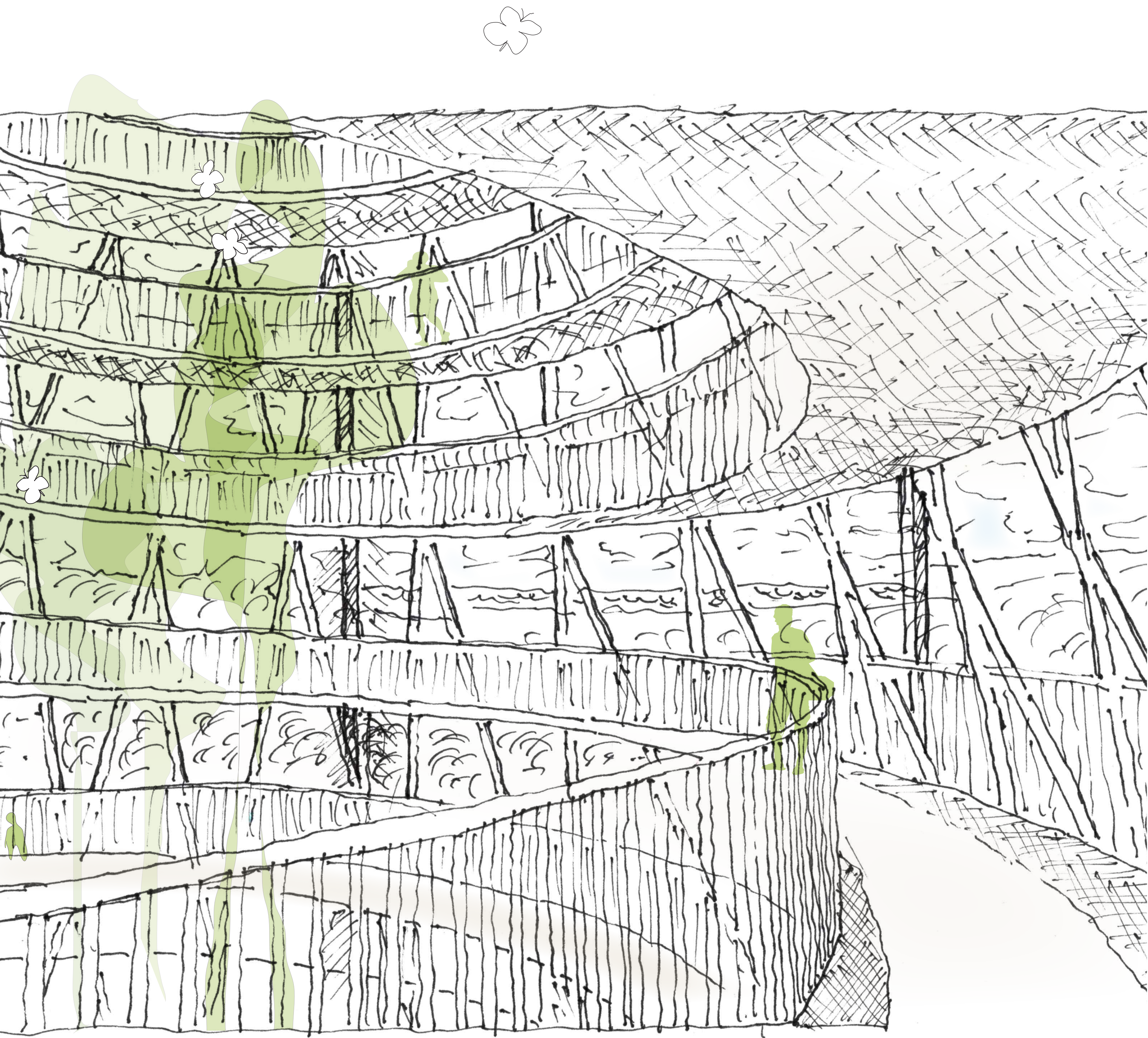


GREEN ENERGY TOWER OF MASDAR

The New Port of Masdar City



INTRODUCTION

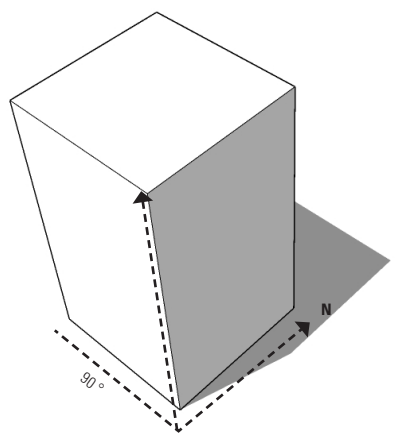
The idea for the land art Green Energy Tower of Masdar, is to express high human aspiration of a sustainable future, Co2 neutrality and a green symbolic tower that produces more renewable energy than it consumes, to share and connect with neighbors of Masdar. We want to create a green botanical oasis in the middle of the desert, that allows everyone to walk up via ramps, from their ordinary daily living, enable to get new perspectives and stunning views towards the city, harbor, and spirituality since the orientation of the ramps are in the direction towards Mecca. the Green tower will encapsulate rare species, botanic and butterflies.

We elevate vertical tower of 34 meters height, solid anchored in the ground reaching up to the drifting sky - man moves in between, up and down via ramps that rise by 7.5%. (The airport near by demands a maximum height of 45 meters.) We expose half the façade plus the roof surface to sunlight to boost solar energy, warm solar rays from Southeast, South, Southwest and West. A closed PV structure complementarity to the open Northern and Eastern side of the façade. The roof construction is bottle green steel as the PV' in RAL 6007 and 4 thin vertical paraffin intersection, which collect solar Energy from the outside in daytime and return energy in the evening to the inside. The 8 angled plan and tower is inspired by Islamic culture & Architecture like the Dome of the rock in Jerusalem, the great mosque of Samarra, minaret of Buchara and the Chinese taoistic bagua, and traditional functions of wind- and sun towers plus a newly built tower in Gissselfeldt Denmark - all in psychical and mental balance with nature. The construction is based on circular economy principles and a productive cycle of the 5 Fung Shui elements. Wood/ bamboo, Fire/ PV, Earth, Metal, and Water. In the future the tower can be separated in destructive cycles: Wood/ bamboo, Earth, Water, Fire, Metal.

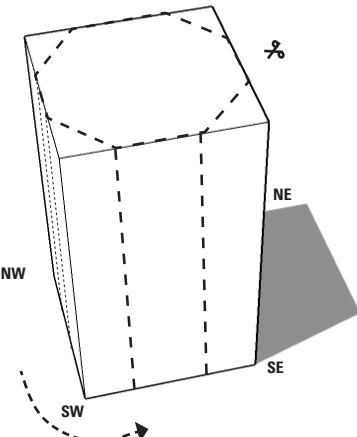
Visitors will, via the curved ramp, be able to move up and down the tower and come close to butterflies and beautiful green landscaping. The aim is to make visitors aware of the significant impact nature has, not only on our climate, but also on our mental health so we can live in balance with each other on the earth. We created a green calm and silent space, where people can use it for praying, meditation or just to take a break from the busy life that surrounds the city, and come up and watch the sunset, sunrise or the seascape. The ramps are generous in width, to accommodate easy passage up and down also in a busy season. The visitors will, via their movements up and down, add to the sustainability aspect in which their footprint and movement in the building will be registered and absorbed, to generate kinetic energy that can be utilized in the total energy account. A botanical oasis, with rare plants, flowers, that can grow optimally because of the weather conditions in Abu Dhabi, with Butterflies all around.

Health and exercise - the statistics show high rates of obesity and health issues in Abu Dhabi and continuing to grow he upcoming years. To battle this, we need to create more public spaces that encourages play and movement. The ramps encourage people to move further up, where they will be rewarded with fantastic views and be able to come closer to nature. It is important to reintroduce the value of experience through movement - it is here were we meet new people, exchange experiences and add quality to the community by becoming more intimate with one another.

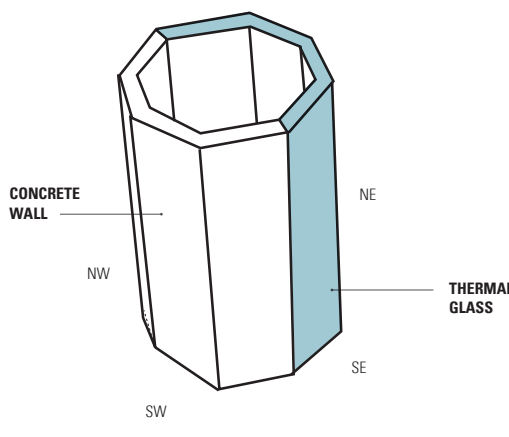
CONCEPTUAL DIAGRAMS



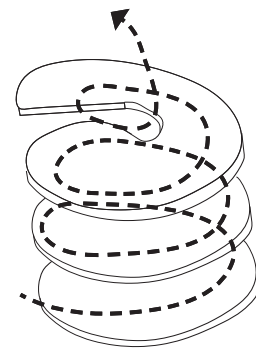
SUN CATCHER
Height 34 m (height restriction max. 45 m)



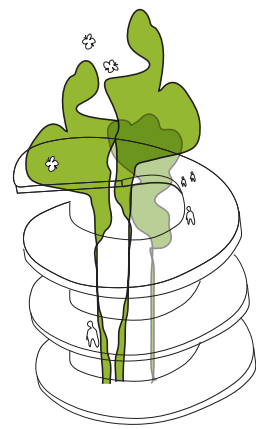
ORIENTATION TWIST
Corners NE, SE, NW, SW



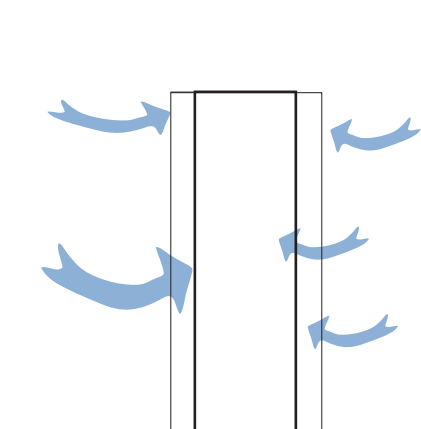
FOLLOW THE SUN
Glass (thermal) and concrete walls orientated for best exposure of sunlight. Selfsupporting structure.



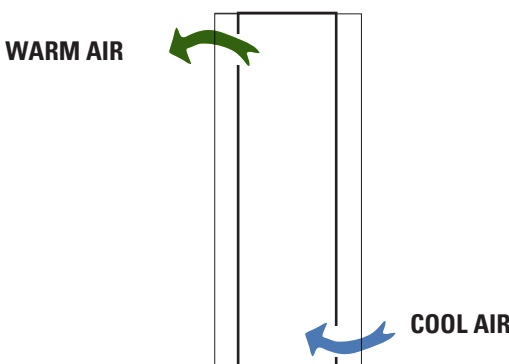
CIRCULATION
General ramp 7.5%, steeper at the top. Recreation for public



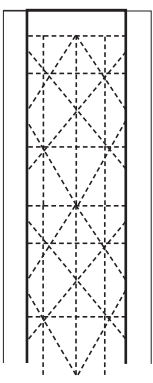
WALKING IN AN GREEN OASIS
A modern take on orangery, with exotic plants and butterflies



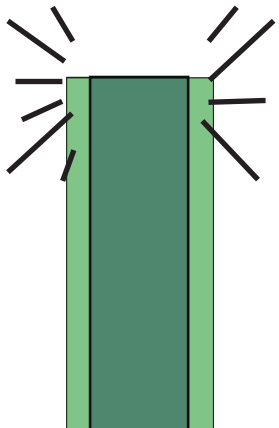
WIND BREAK
The body of the tower, with its 8 edges slow down wind speed at higher floorlevels.



NATURAL VENTILATION
The Tower will promote natural ventilation via openings in the bottom and top parts of the tower



TRUSS/BRACE
Inspired by the islamic geometric patterns, the brace and structural system will be cross timber laminated beams and coloumns to add to the sustainable ecosystem.



ATTENTION + IDENTITY
The tower is Masdar city's new port. It invites everyone to join an adventure and to reward does going all the way up with fantastic views.

