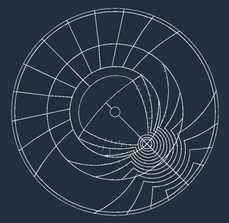
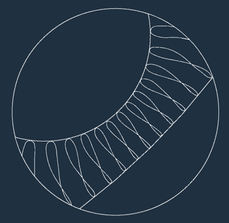
ASTURLAB | ANALEMMA

ASTROLABE is an astronomical instrument serving various theoretical and practical purposes, such as the demonstration and graphical solution of many problems of spherical astronomy, the measuring of altitudes, the determination of the hour of the day and the night, and the casting of horoscopes.

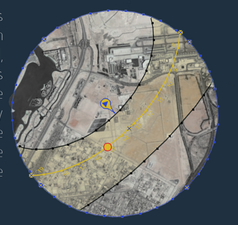
In the Islamic Golden Age, astrolabes were widely used to determine the prayer direction towards Mecca, as well as to pinpoint prayer timings with the movement of the sun. Muslim astronomers also added angular scales in the astrolabes themselves, making it possible to navigate distances.

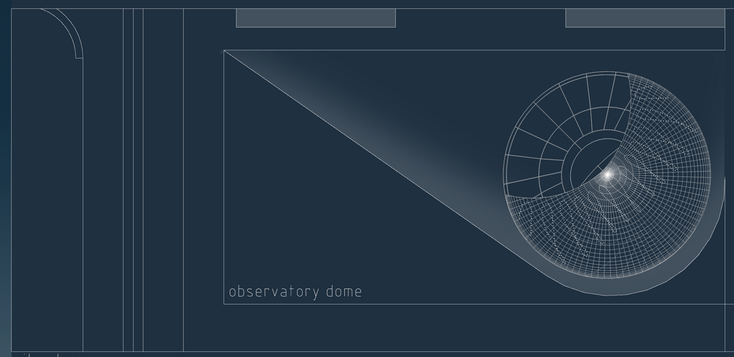


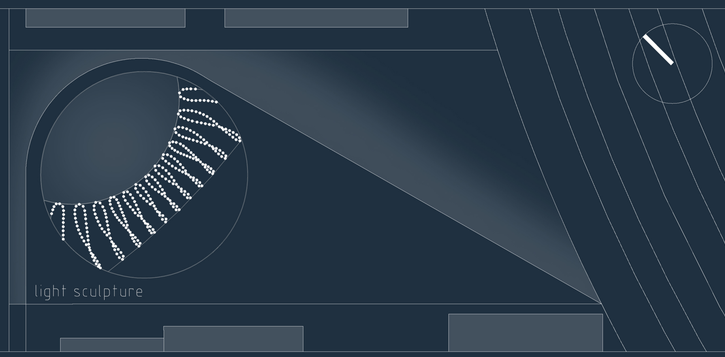
ANALEMMA is a diagram showing the position of the Sun in the sky, as seen from a fixed location on Earth at the same mean solar time, as that position varies over the course of a year. The diagram will resemble the figure 8. The resulting curve resembles a long, slender figure-eight with one lobe larger than the other.



Considering that the U.A.E. has one of the highest sun exposure rates in the world, solar power is probably is it's biggest source of renewable energy. Therefore, sun's daily and yearly trajectories serve as a formal inspiration for the Masdar's 'Return to the Source' landmark.

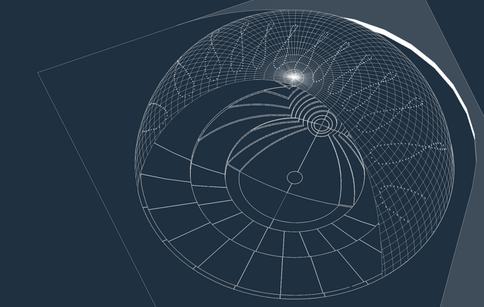






site plan

depiction of analemma at the location



- observatory
- cover
- auditorium
- photovoltaic film surface
- calendar
- sundial clock

- landmark
- public space sculpture
- light installation