

2009-2010
Eca
Architecture
Madrid
ES

Expo 2010

Time: Since September 2009

Type: Competition

Program: Madrid Pavilion for Expo 2010

Size: ???m2

Location: Shanghai, China

Status: Under Construction

Air Tree

Shanghai Expo 2010 will have Pavilions of Cities to show good example of buildings which have been built in each selected cities, and The Project "Air Tree" by Ecosistema Urbano was selected for the Madrid Pavilion. "Air Tree" is an artificial tree for new urban public spaces and it provides climate controlled open space till trees grow up.

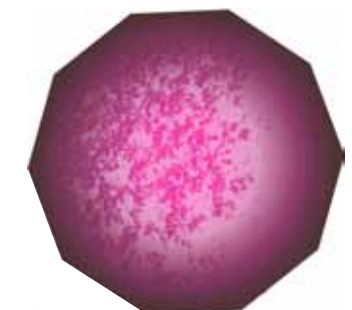
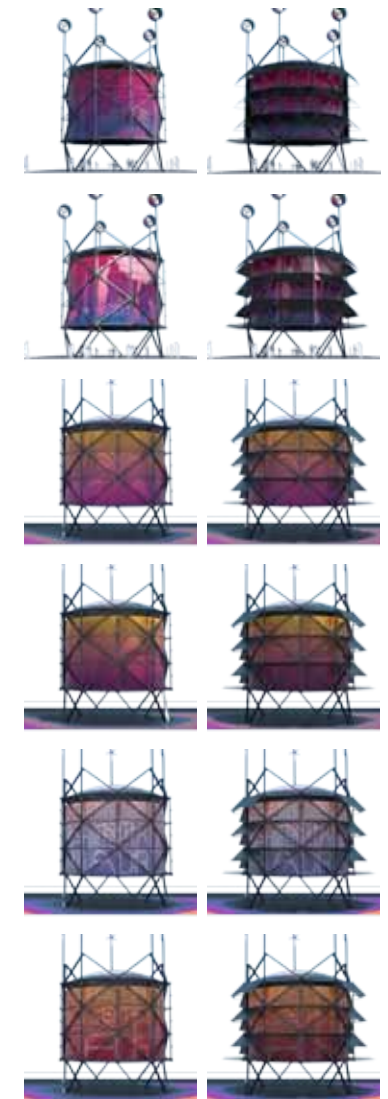
Of course, Air Tree provides not only comfortable climate but also activities; playground, information center and auditorium with media projection on the inner wall. Therefore, even after real trees grow up, Air Trees will be able to be used for special activities or the Air Trees can be reused in other places because of the light structure and replaceable ceiling and wall, which can be adapted to the climate of new sites.



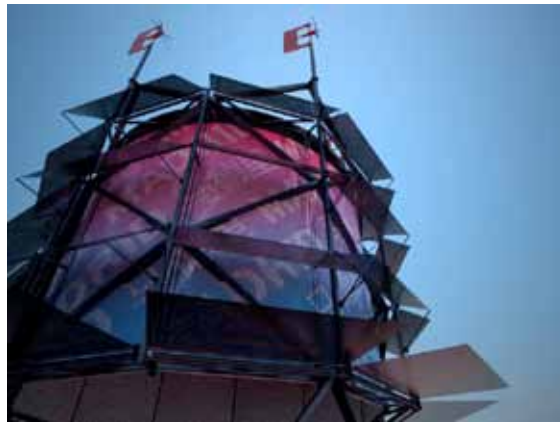
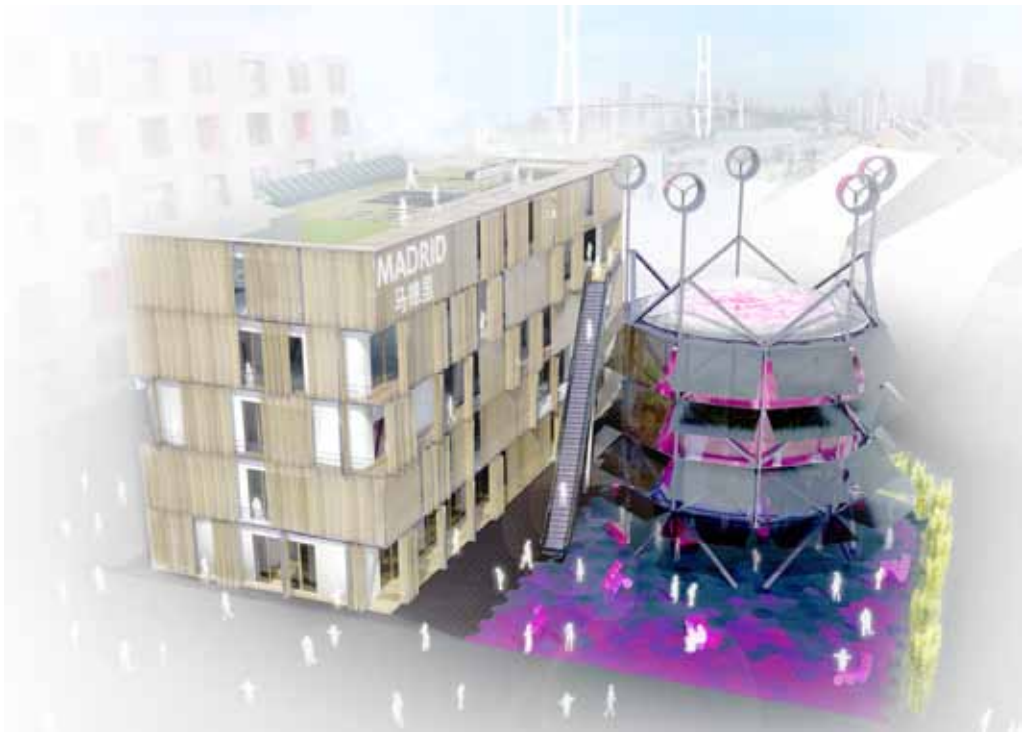
adapt to Shanghai Weather

Compare with Madrid, Shanghai has more humid climate and the Air Tree in Shanghai needs to have stronger character as a representative of Madrid. Therefore, the Expo Air tree has totally different climate control system and media features. Instead of using moist air for cooling, awnings, which cover the whole building, will be controlled for 24 hours to provide best climate condition in the building by sensors of temperature, wind speed, humidity and angle of sunshine. Huge wind generators are placed not only for icons of the pavilion but also for the energy supply for the ventilator and media projection.

texture design of main wall in process



Printing on Roof



Hexagon

The parts I was responsible were the design of pavement (which has different colors for controlling the amount of sun reflection towards the pavilion), printings of the textiles (ceiling, wall and awnings) and the design of wind generator.

Since more than half of the black awnings are closed on day time, the textile of the wall behind the awning has to be understandable only by looking at a small part. Therefore, the wall was decided to be wrapped by medium size letters of "Madrid" with shiny colors. As the furniture of the pavilion is decided to have hexagonal shape, the graphic of all textiles consists of hexagon and the air tree will be covered with same hexagon pattern as if all the parts have same DNA.