

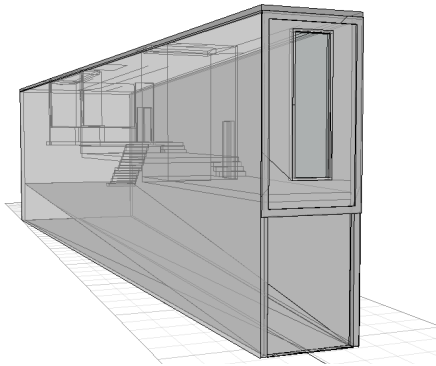
DIGITAL TOOLS

ECOTEC

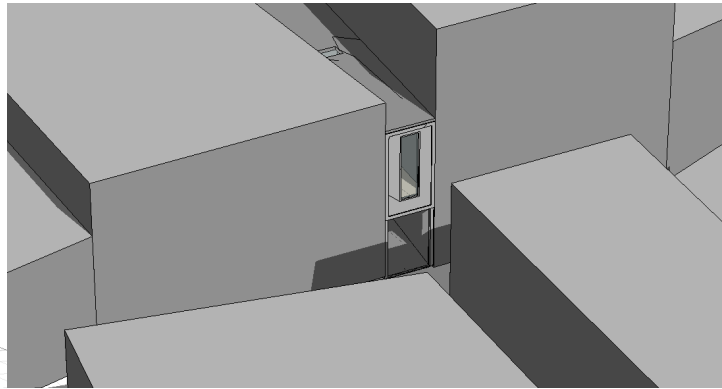
Diana Raquel León Román

DESCRIPTION

The following project is a CASA-STUDIO located in a residual space between buildings. Solar analysis will be applied to this building in order to understand the light effect.

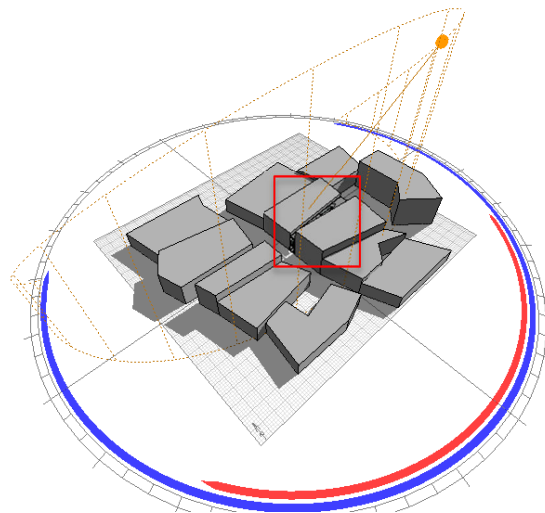


CASA-STUDIO

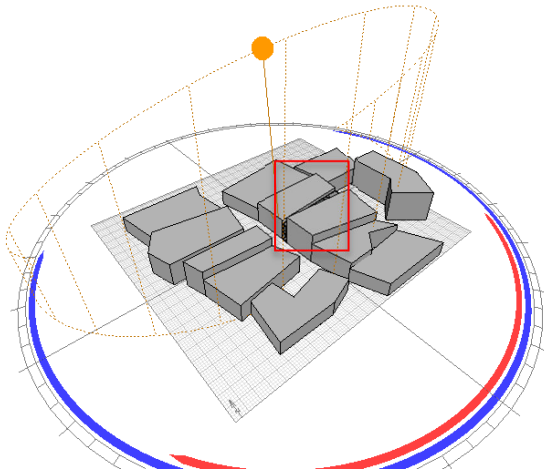


BUILT CONTEXT

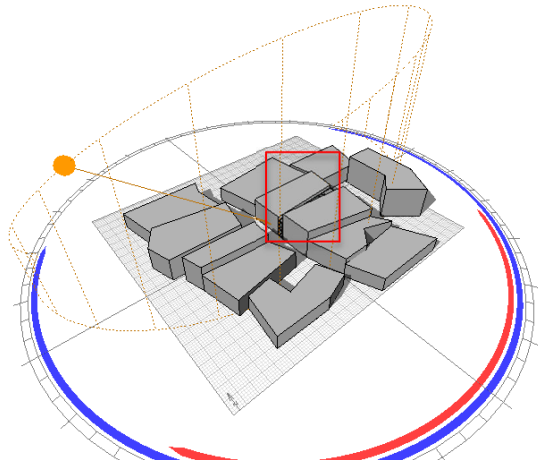
DAILY SHADOWS



SHADOWS DURING MORNING: July 15th 10 00 HS

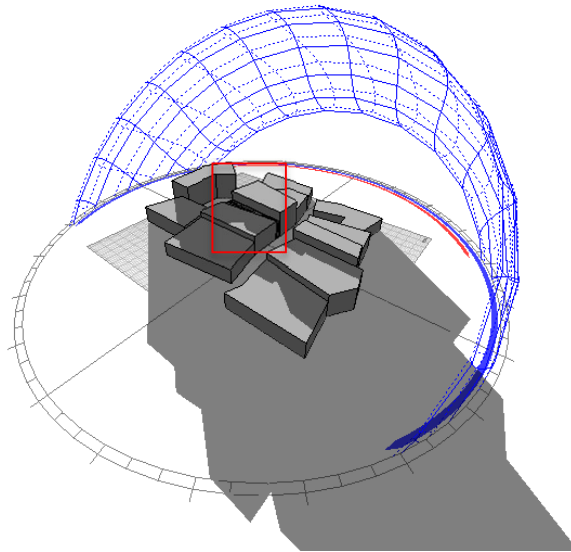


SHADOWS DURING NOON: July 15th 13 00 HS

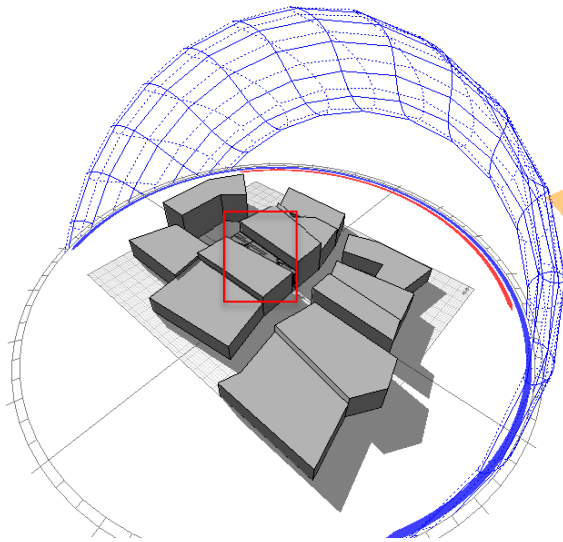


SHADOWS DURING NOON: July 15th 18 00 HS

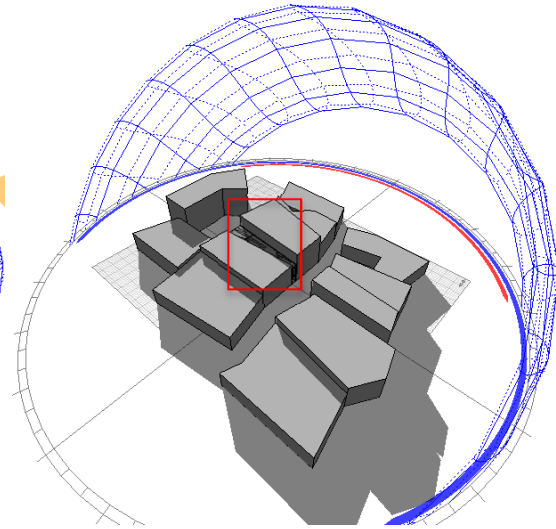
MONTHLY SHADOWS



SHADOWS - JANUARY

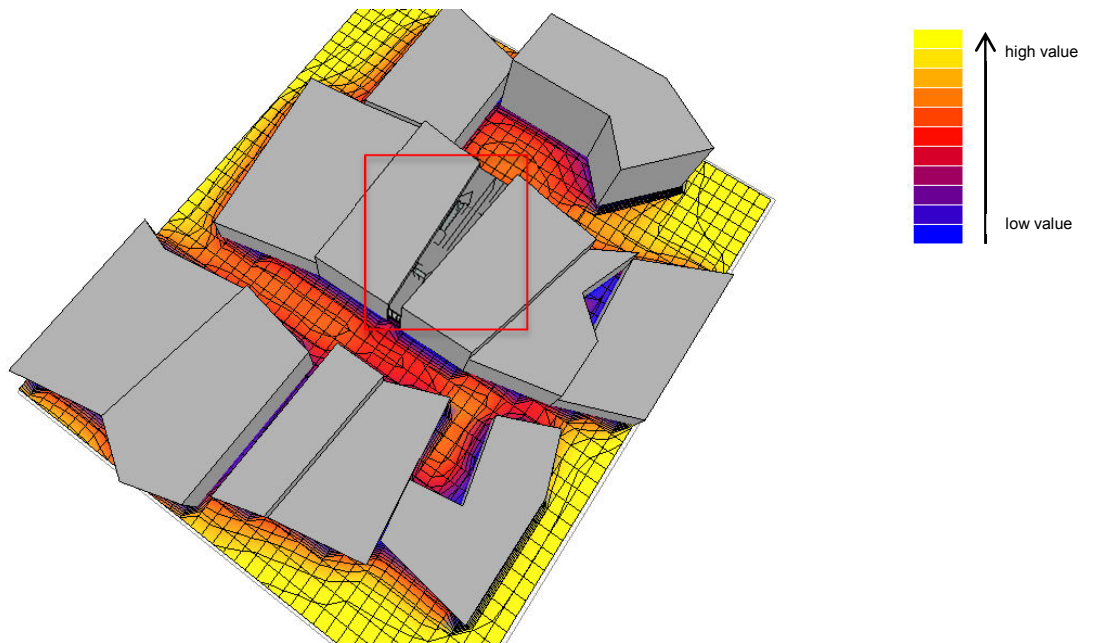


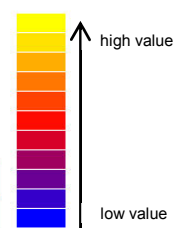
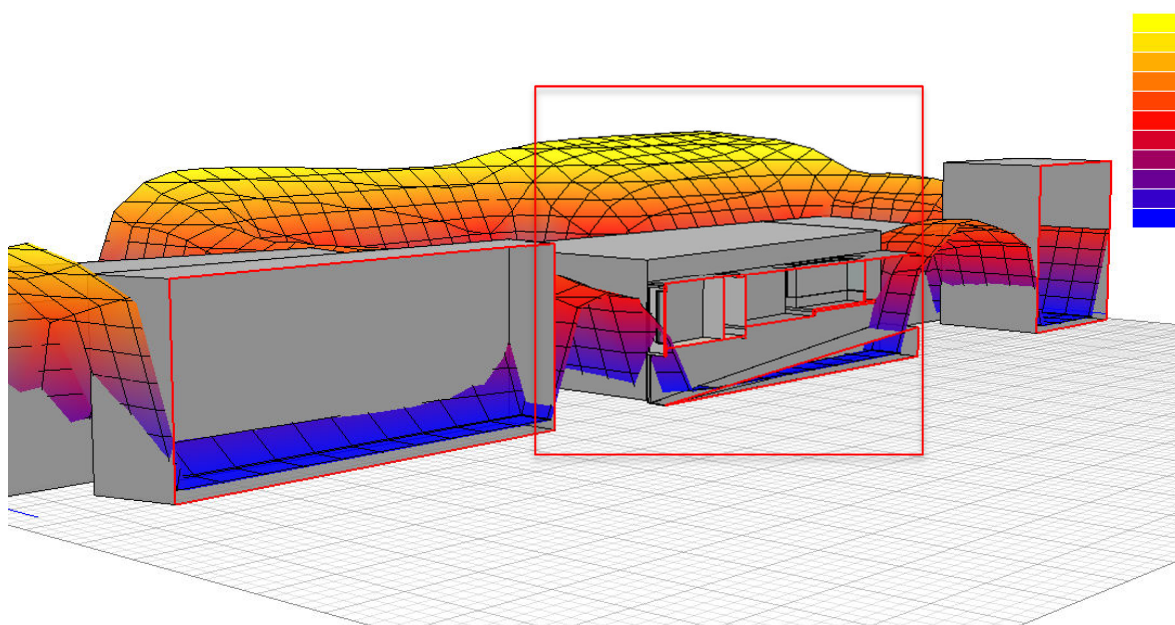
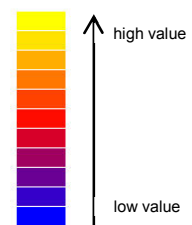
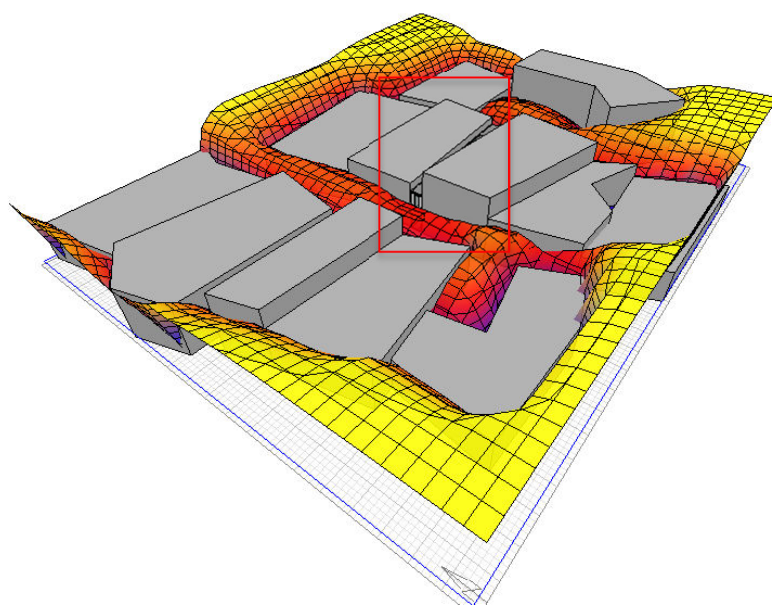
SHADOWS - MAY



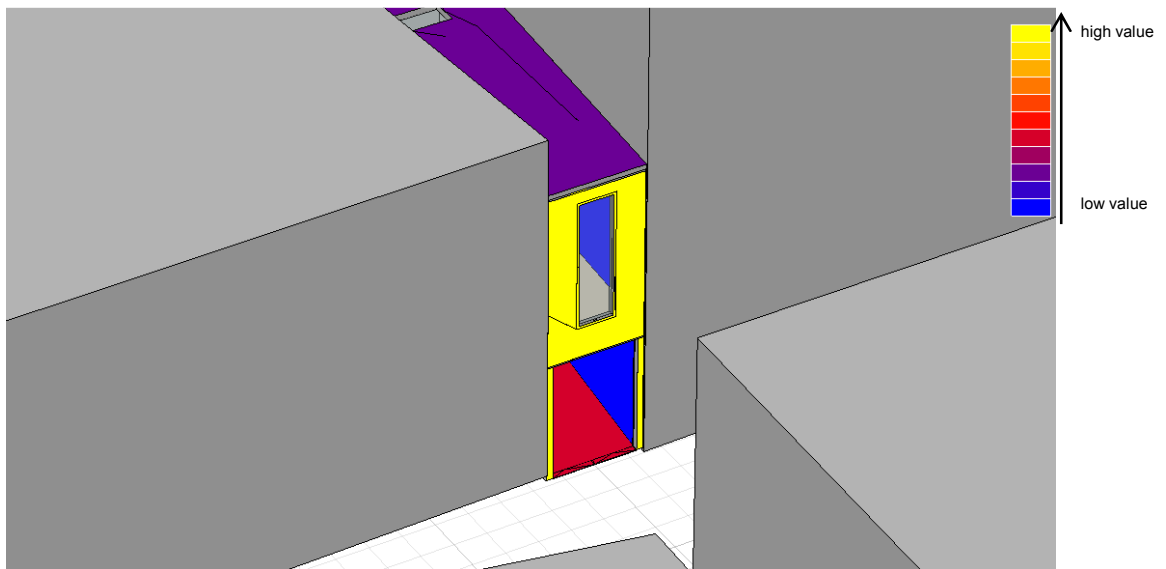
SHADOWS - OCTOBER

SOLAR ANALYSIS

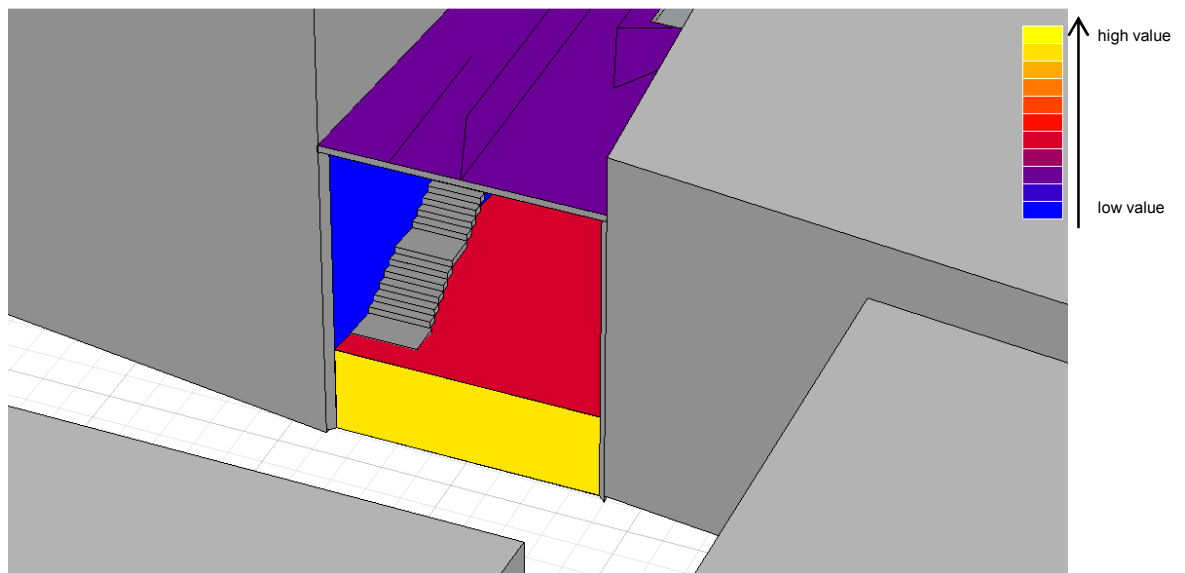




SOLAR ANALYSIS ON FACADES

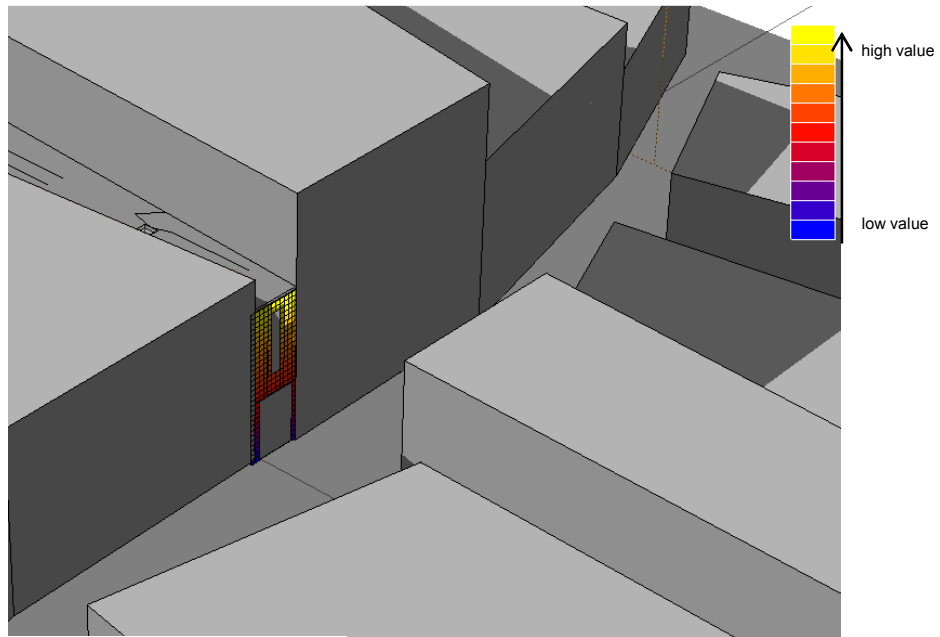


FRONT FACADE

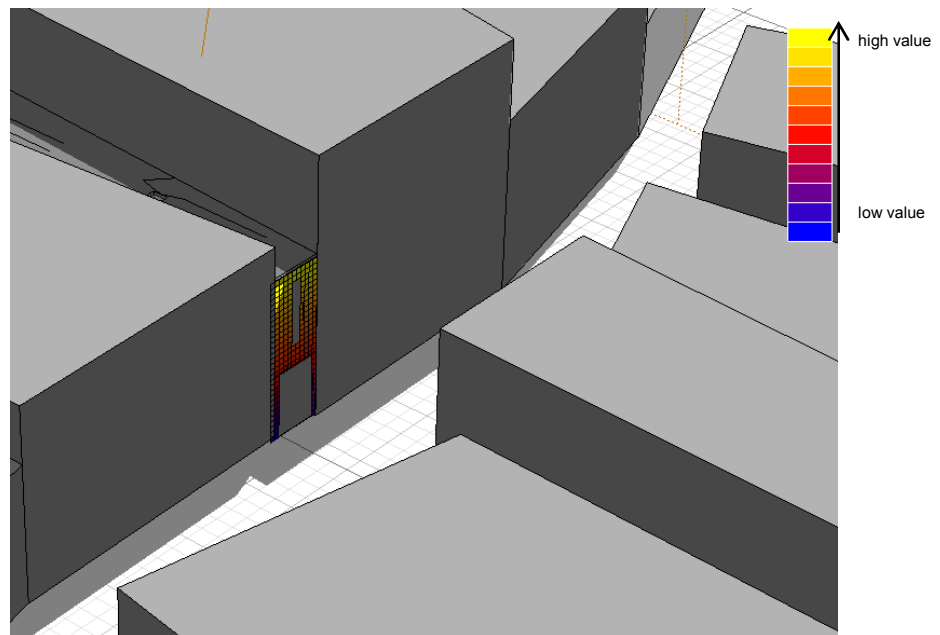


BACK FACADE

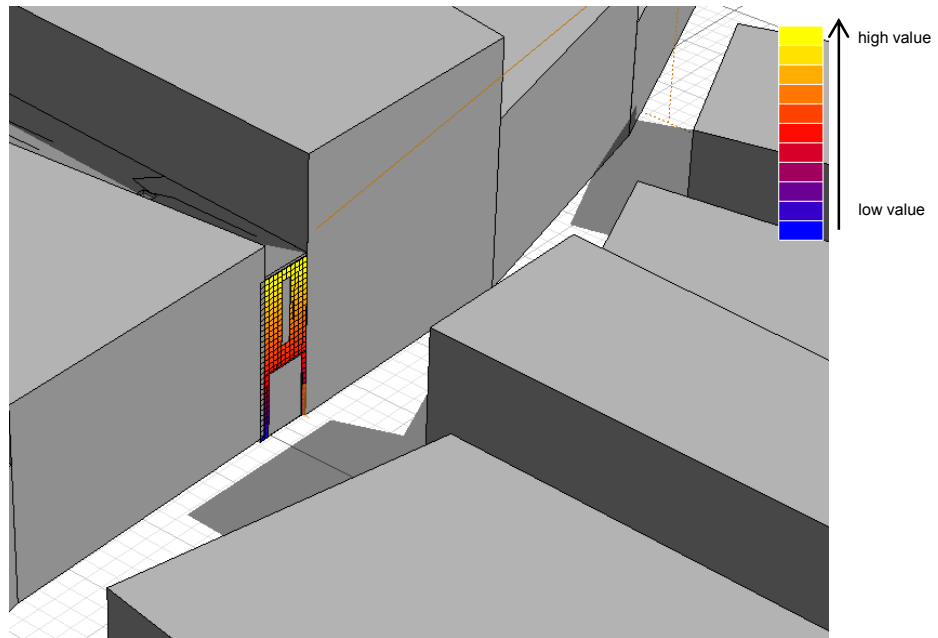
SOLAR ANALYSIS ON FACADES



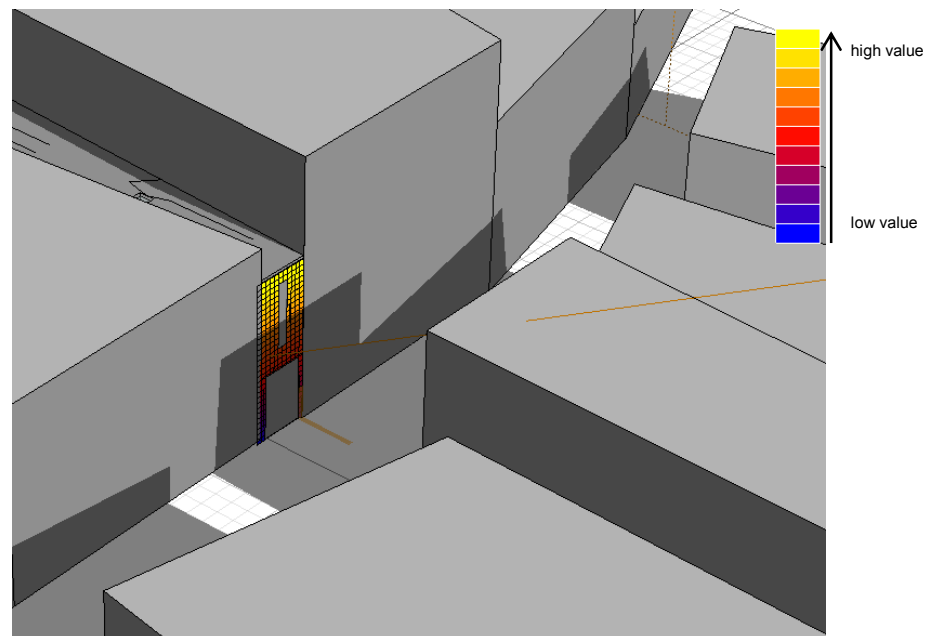
SHADOWS AT 7:00 HS



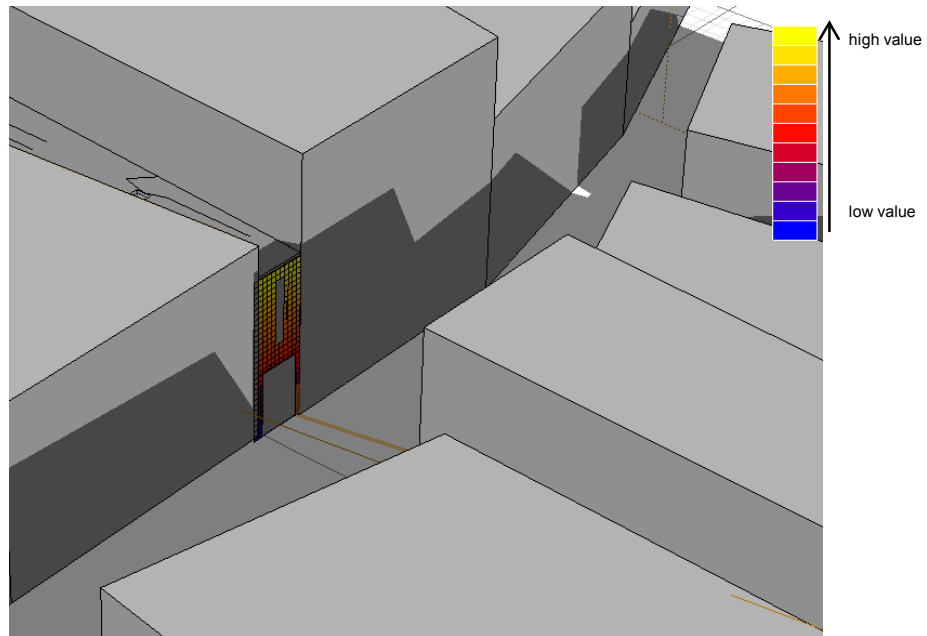
SHADOWS AT 12:15 HS



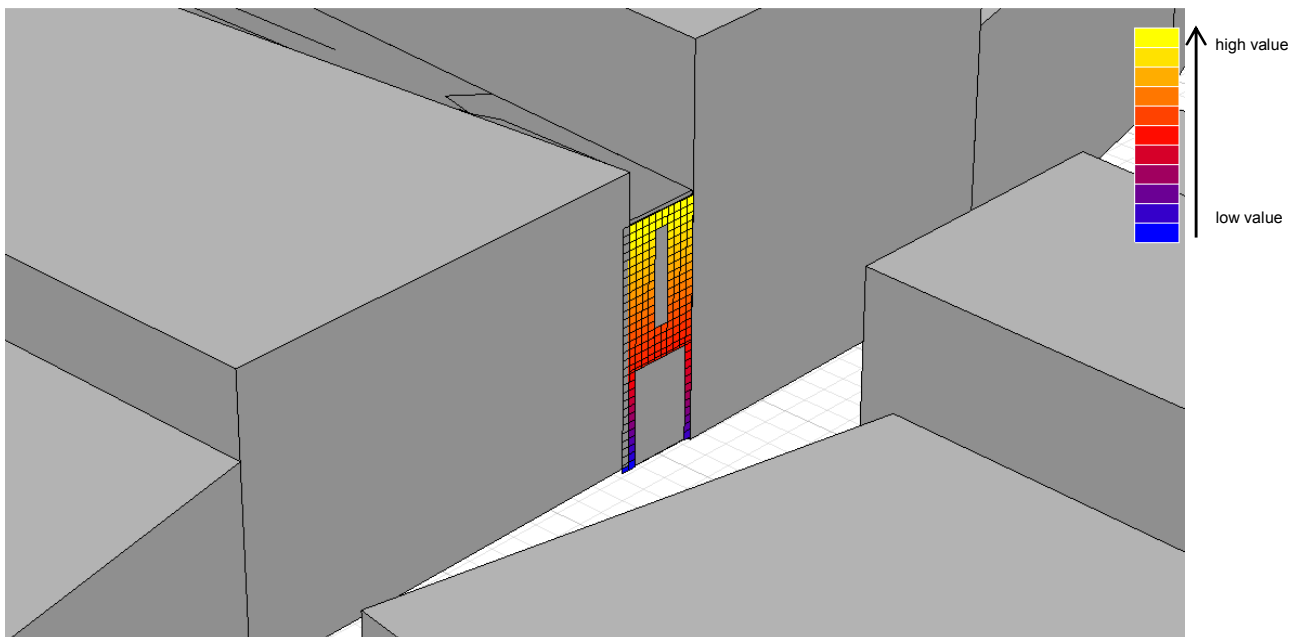
SHADOWS AT 15:30 HS



SHADOWS AT 17:15 HS

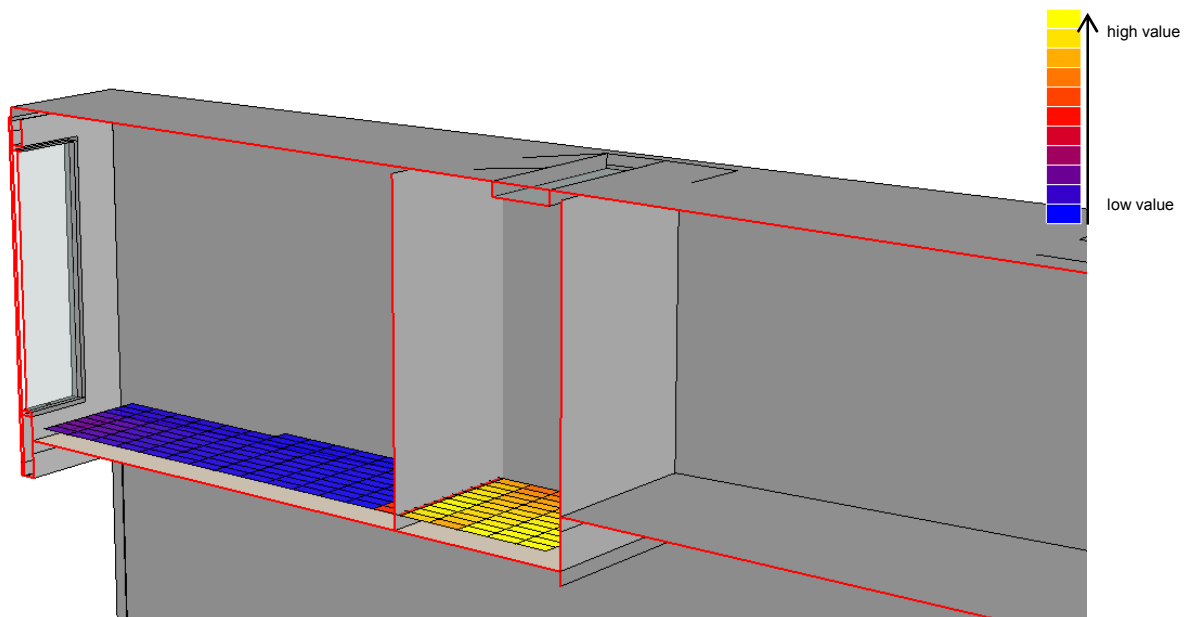
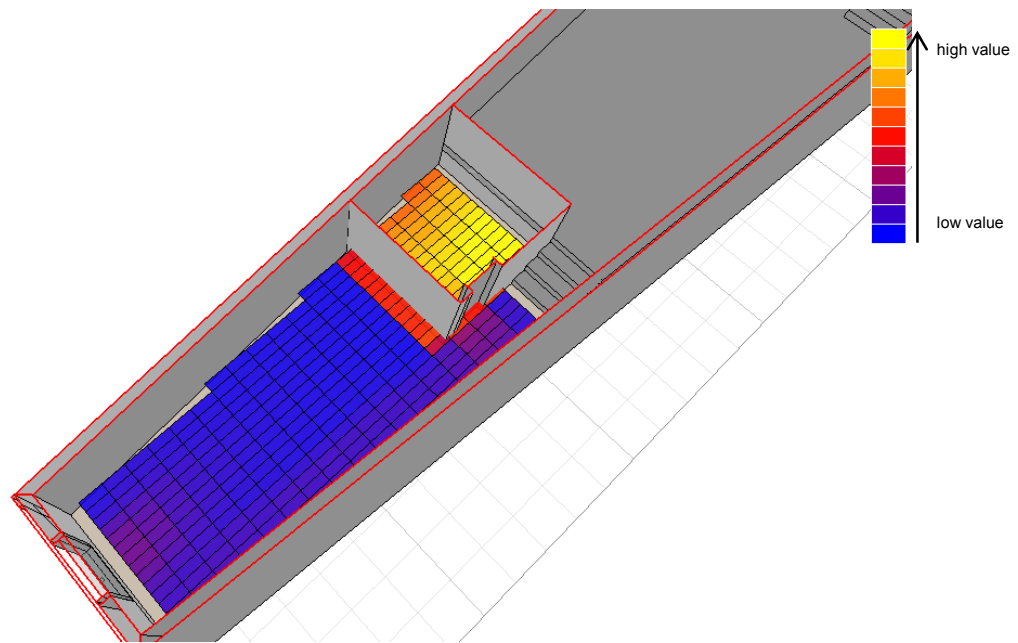


SHADOWS AT 18:15 HS



RESULTS OF THE LIGHT EXPOSURE OF THE FACADE

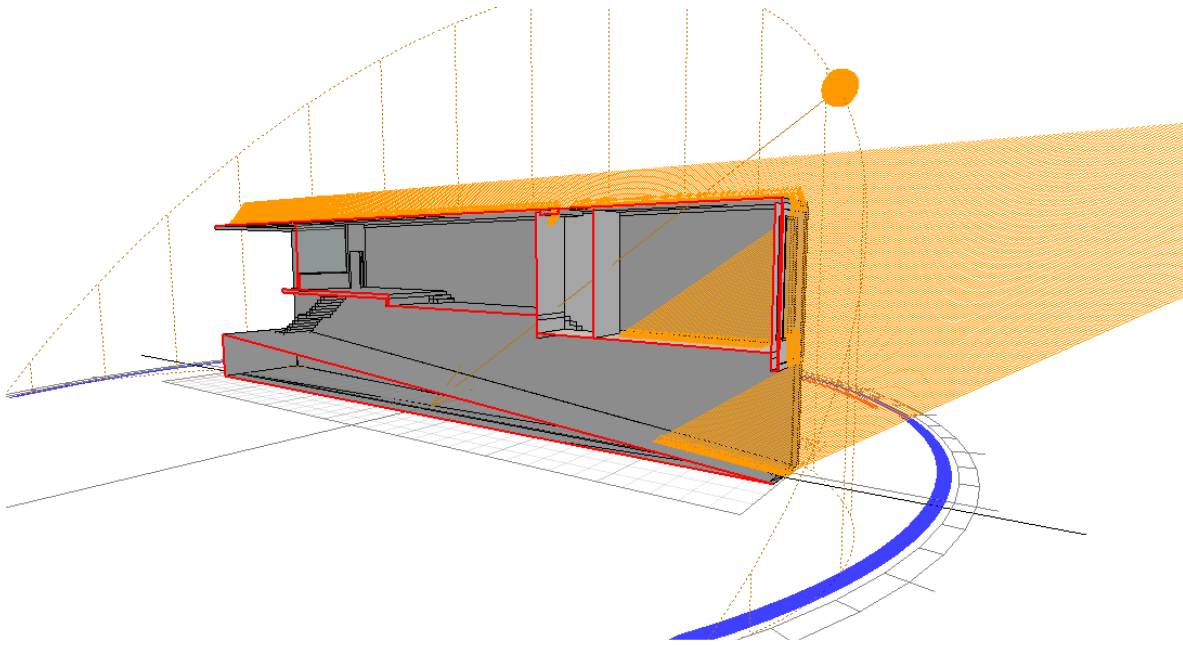
DAYLIGHT ANALYSIS



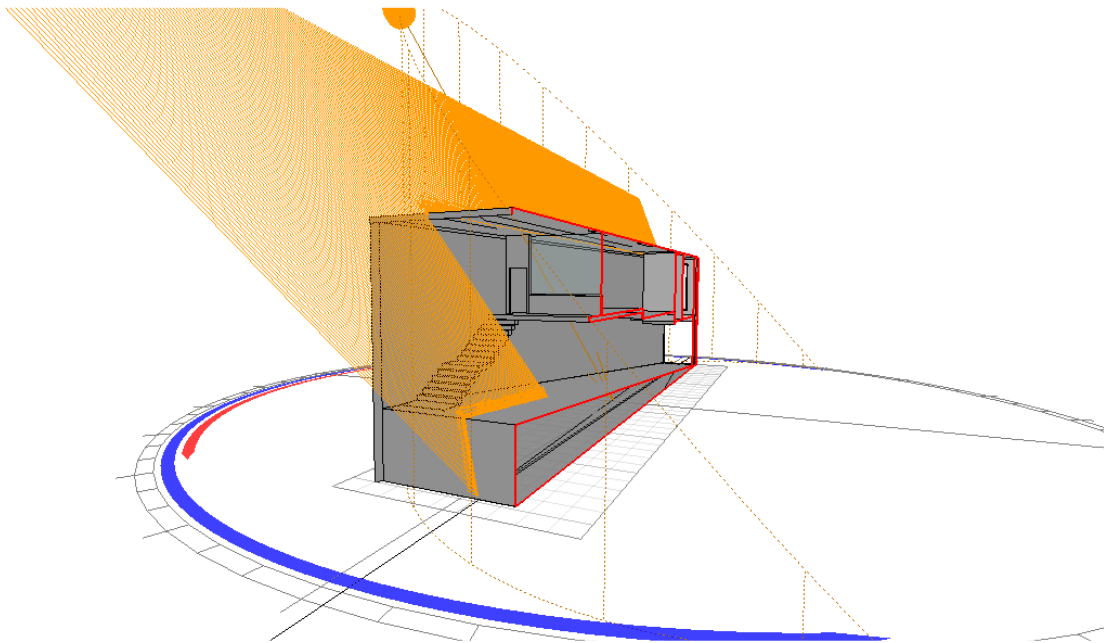
The light effect in the bathroom came from the skylight above.

Reflectance values: Internal divisions: 0.2. Walls: 0.5. Floor: 0.8. Ceiling: 0.7. Glass: 0.7

RAY LIGHT ANALYSIS



This exercise helps to understand the light ray's incidence in the front façade. The same procedure was developed for the back façade.



THERMAL CONFORT ANALYSIS:

Radiant Temperature

