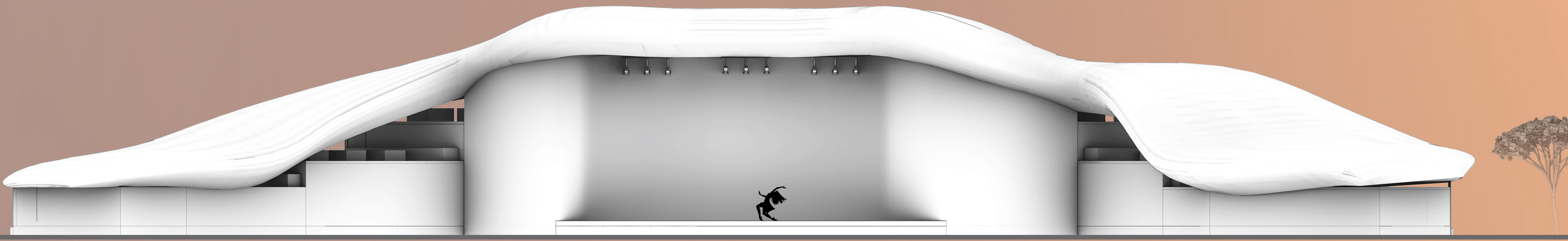
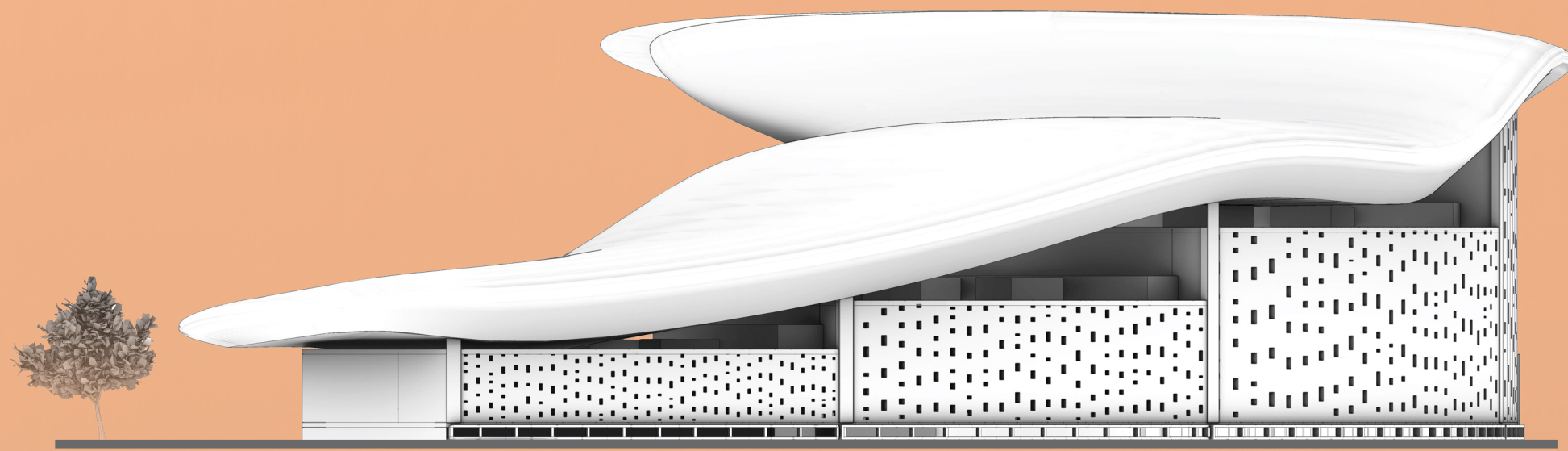


THEATRE POPULAIRE IDEA

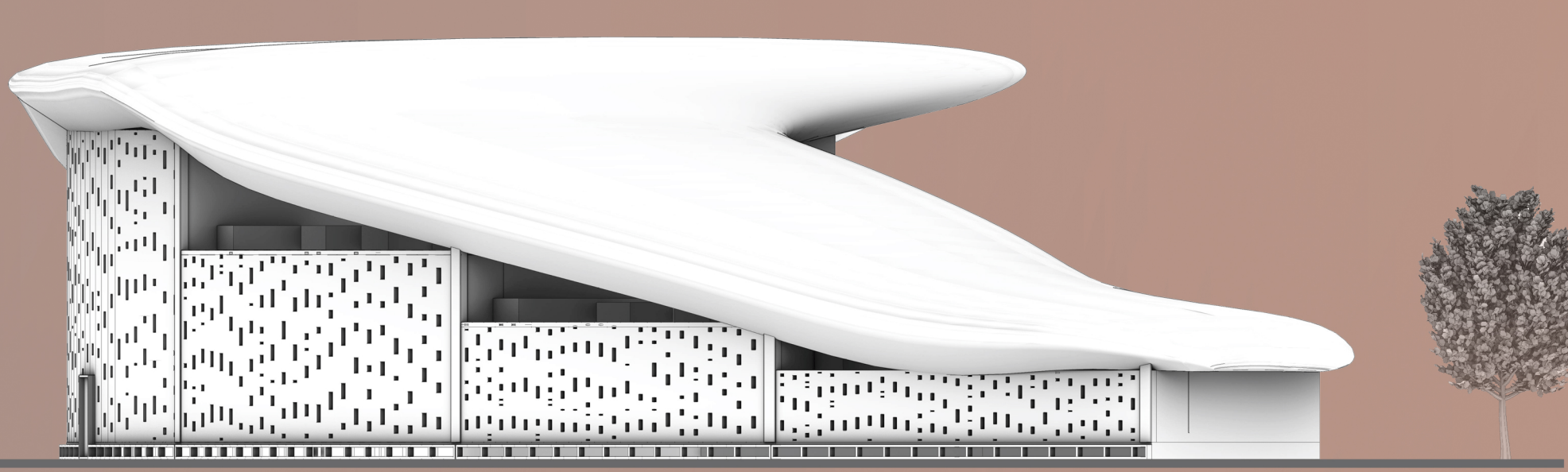
South Elevation
scale 1:250



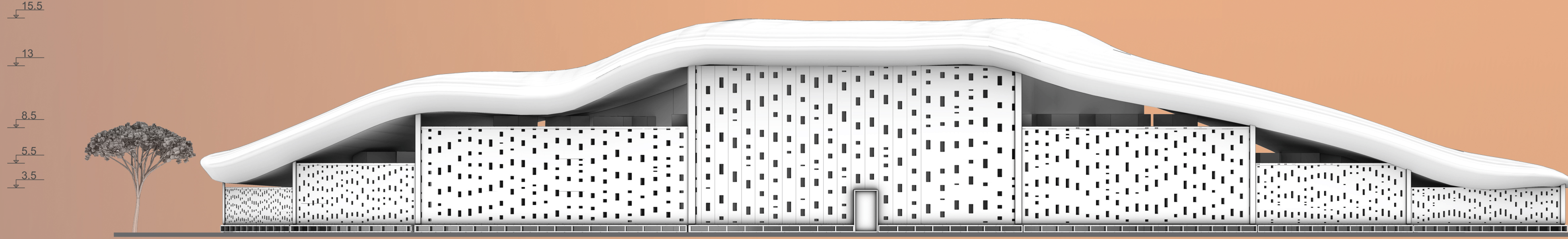
East Elevation
scale 1:250



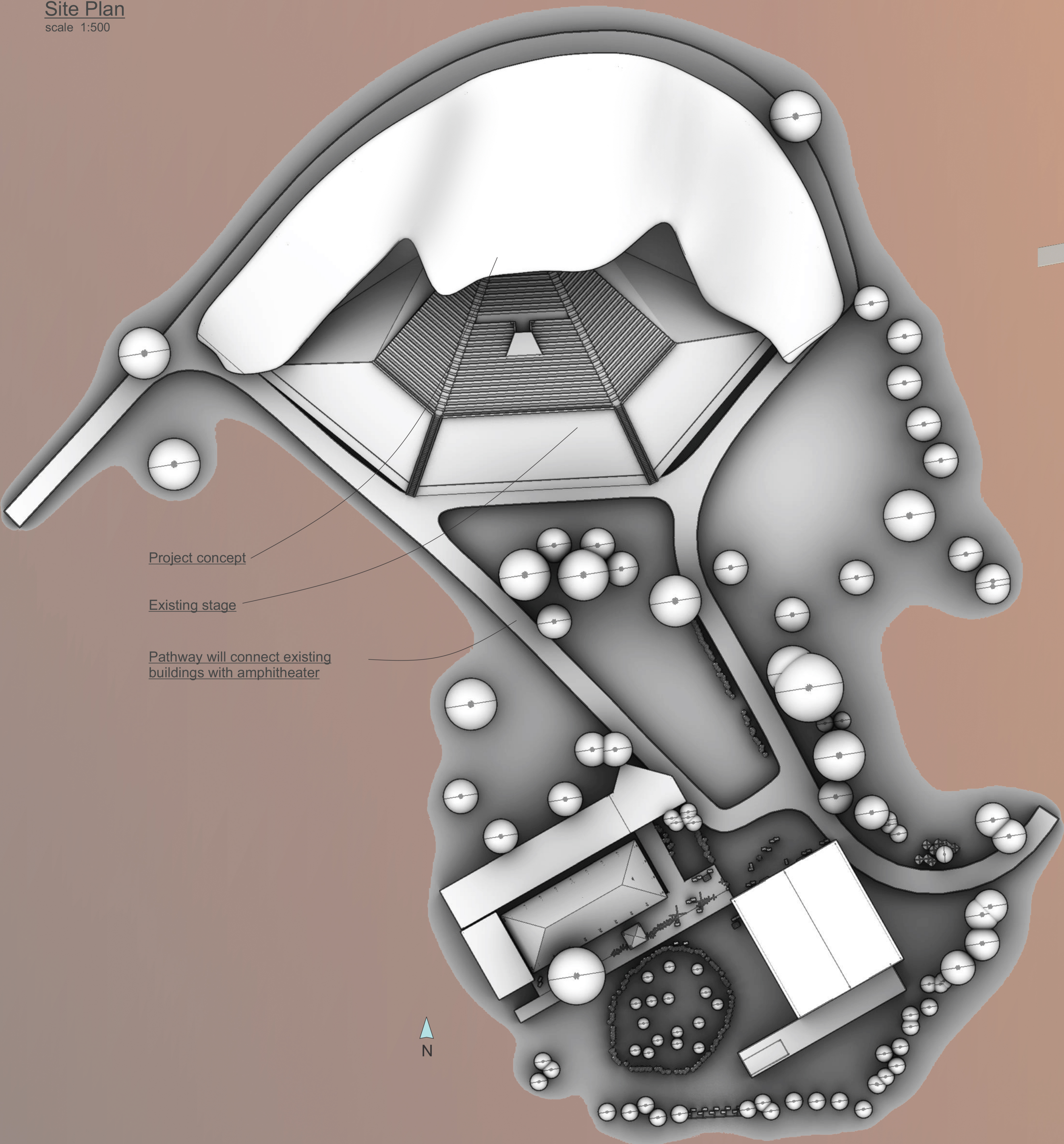
West Elevation
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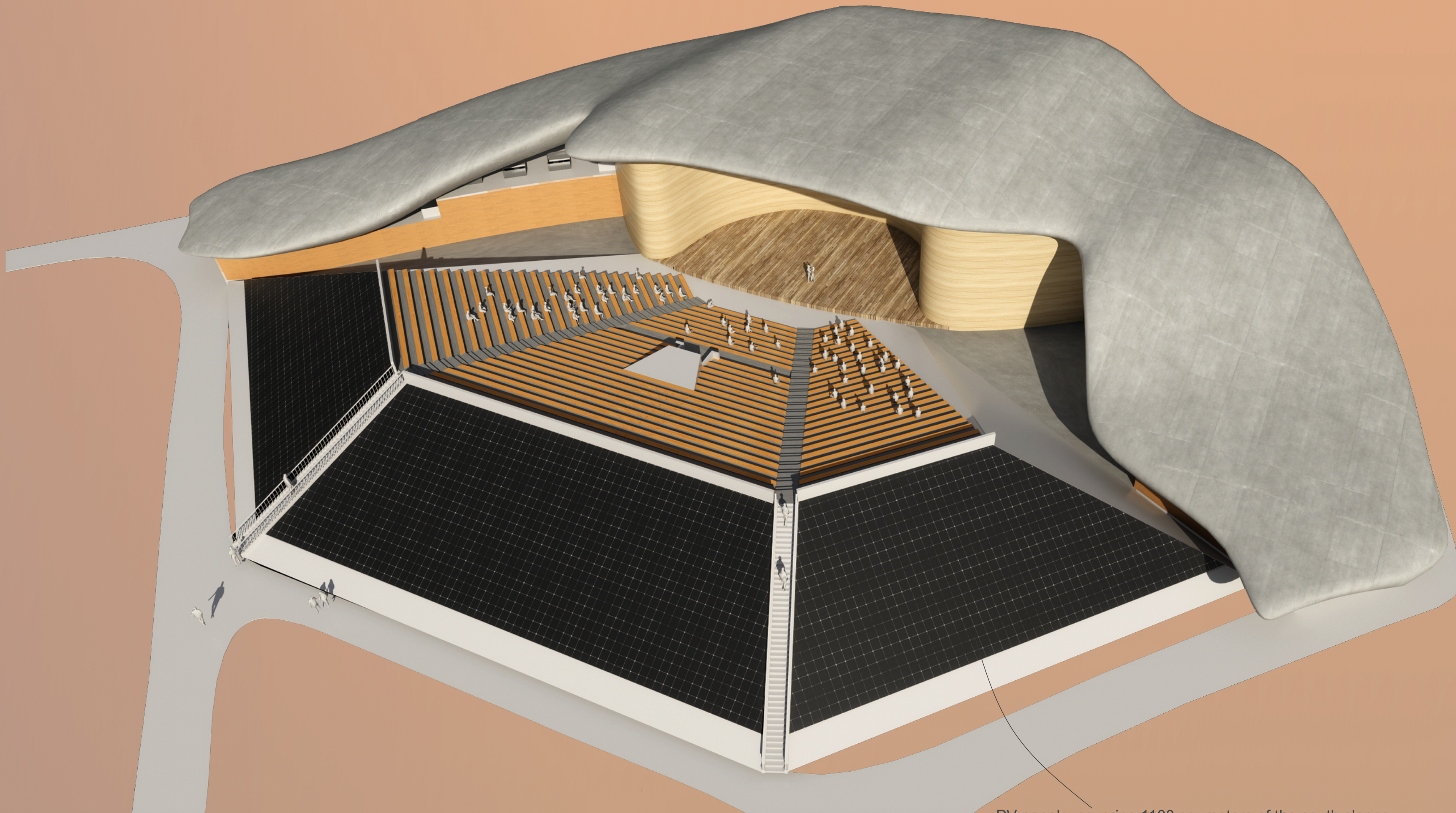
North Elevation
scale 1:250



Site Plan
scale 1:500



Main perspective



PV panels, covering 1100 sq. meters of the south slopes of the existing stage.
Average daily AC energy per year- 586 kWh
System size- 149 kW
Total AC energy per year- 214000 kWh

Concept

Main idea of the project was creating space that can connect three aspects- attractiveness, sustainability and dynamism. Theater and especially dance associates with eternal movement and plasticity. This is why building is shaped that way- wide wave that covers you like magnificent performance. Shape of the roof and curved floor plan represents one of the main ideas of the dance- plasticity in motion. Alongside with it, recognisable abstract iconic form will encourage people to get closer to art, attract more visitors and even improve local urban environment.

Strong character of the building reflects traditions and local climate challenges. To begin with, it is easier to create difficult shape using relatively small parts. Locally available "Red stone" can be extracted out from the ground. Brick similar blocks made from it will easily follow the form of the building and fill reinforced concrete load-bearing structure.

Alongside with minimising demand on artificial light during the day, natural cooling and ventilation was important part of the concept. Ouagadougou is a hot place and having constant air movement inside building is essential. This key part of the design was achieved by creating ground level inlets for cool fresh air on north side and large ceiling outlets which are shaded by roof to eliminate direct solar radiation. In addition, ceiling fans are speeding up air flow for better performance. And even if this would not be sufficient, solar panels installed on the south slopes of existing stage will produce more than enough energy for use of mechanical cooling systems in hottest hours. Extra energy could be fed into the existing AC network to power neighbor buildings.

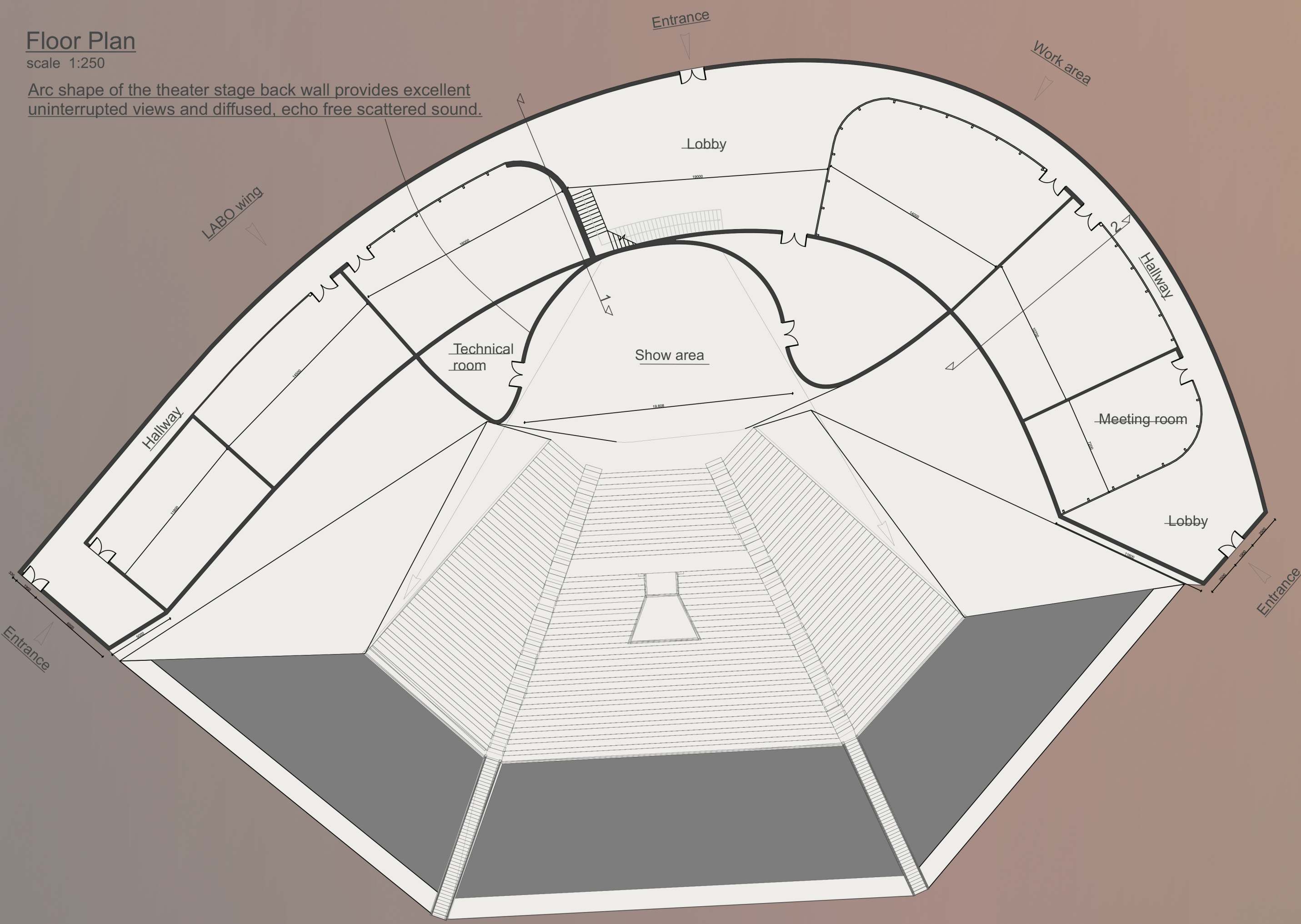
Interior space



Translucent (polycarbonate) interior wall provides additional uniform lighting coming from perforated hallway exterior wall.

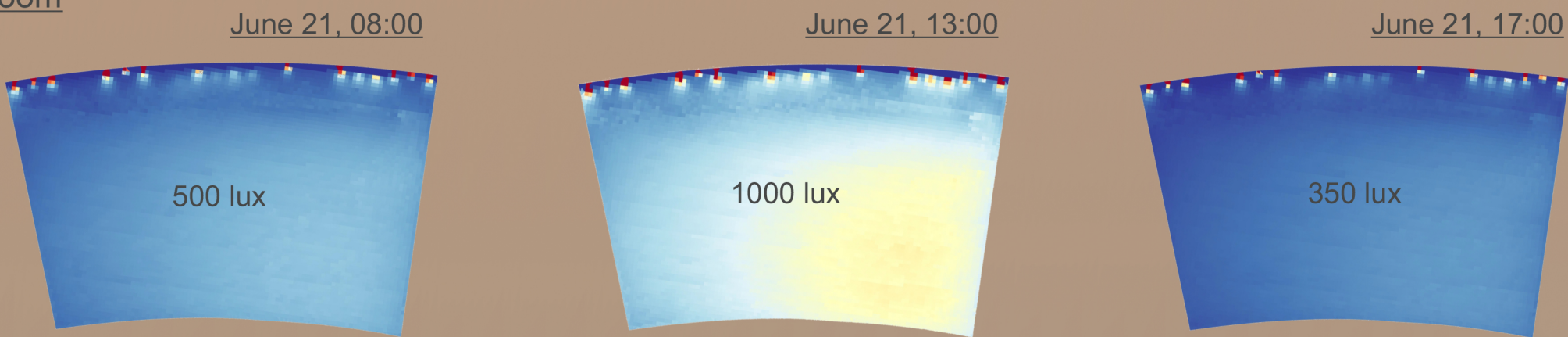
Floor Plan
scale 1:250

Arc shape of the theater stage back wall provides excellent uninterrupted views and diffused, echo free scattered sound.

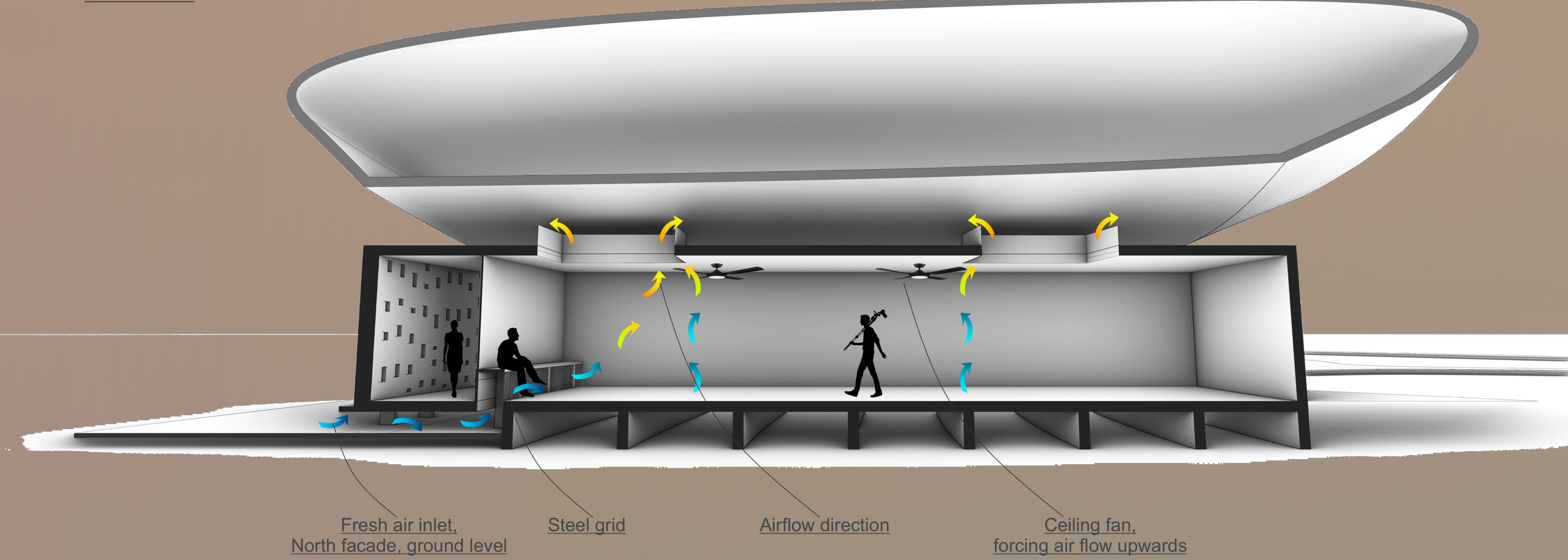


Interior daylight calculation for project building typical room

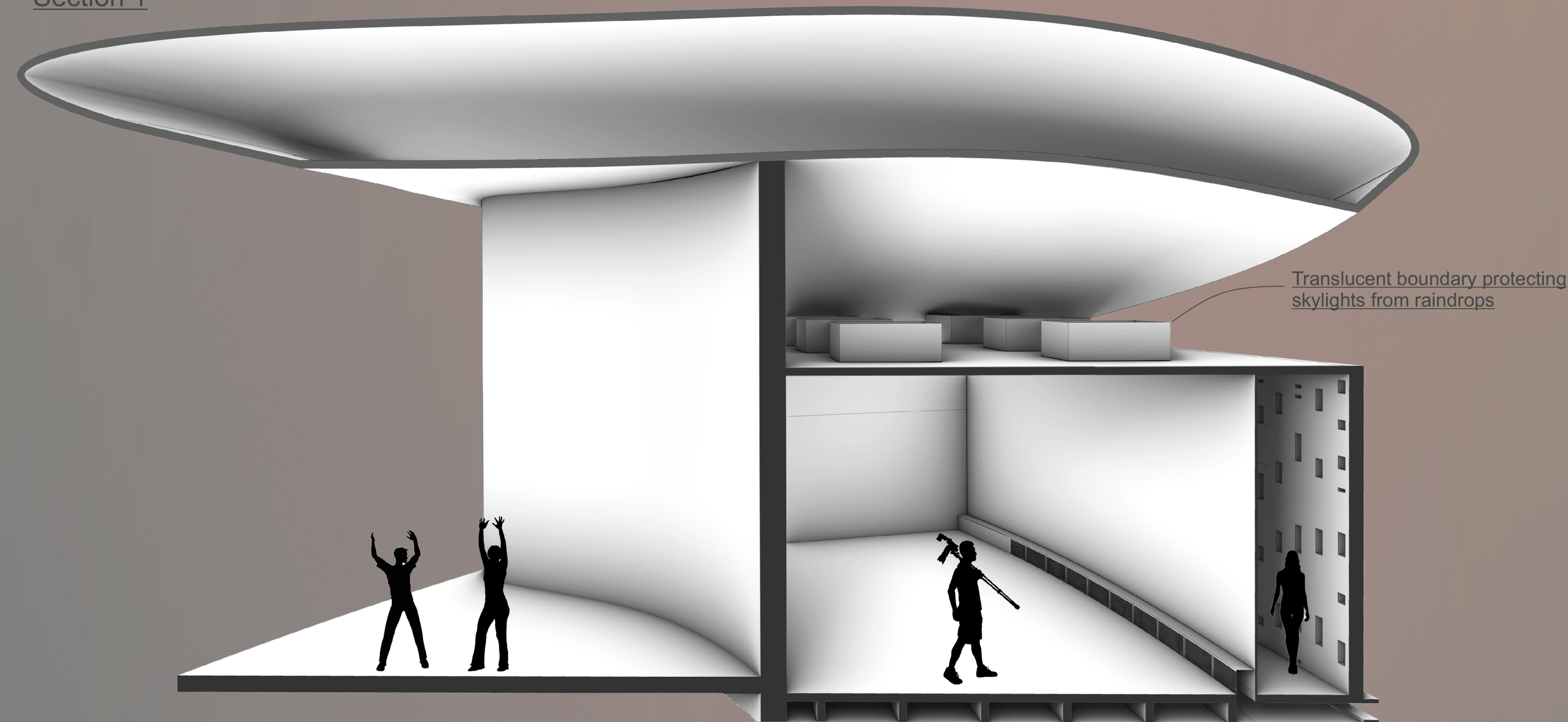
Diagrams on the right show daylight distribution in one of the rooms during June 21. Light distribution was measured 80 cm up from floor level. It is clear, that from 08:00 to 17:00 project design provides sufficient, uniform lighting level for activities like dancing, theatrics etc.



Natural ventilation diagram
Section 2



Section 1



View from amphitheater stands

