

CONCEPT

The site given is hosting one of the most prestigious music concerts of Norway. A very large influx of music lovers is expected, keen to enjoy the scenic serenity and dynamic music. One of the main needs of such an enthusiastic crowd is dancing.

Therefore we wanted to incorporate the “psychological need” of the user and use the energy generated through “physiological conversion” of the desire to enhance the experience of the place.



Aesthetics and context:

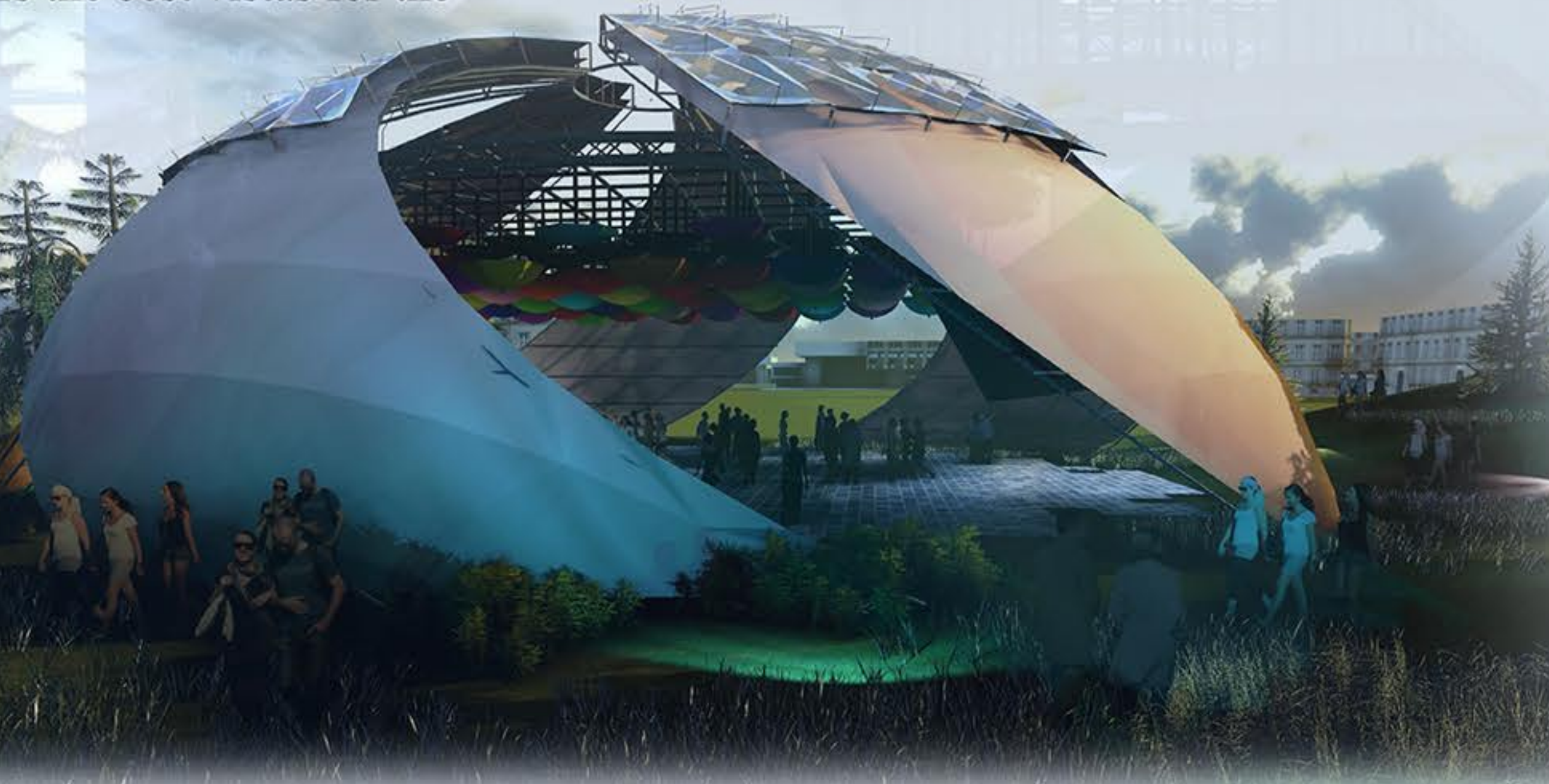
A sustainable design is a structure in tune with its local climate, culture and operations.

The building seems to be rising from the earth and merging with the highly contoured site.

The design strives to blend the architectural expression with the local ecology and topography of the site.

SITE

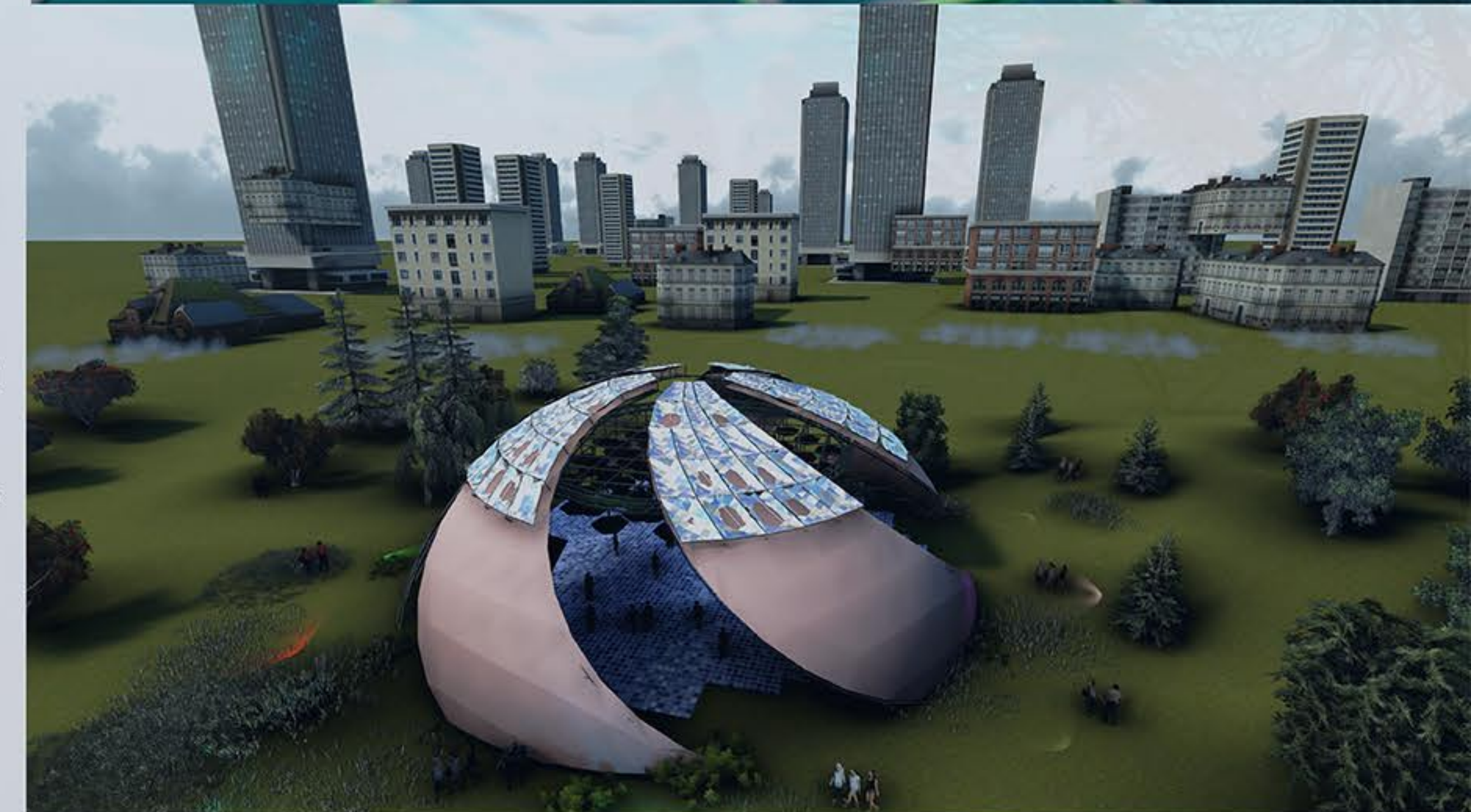
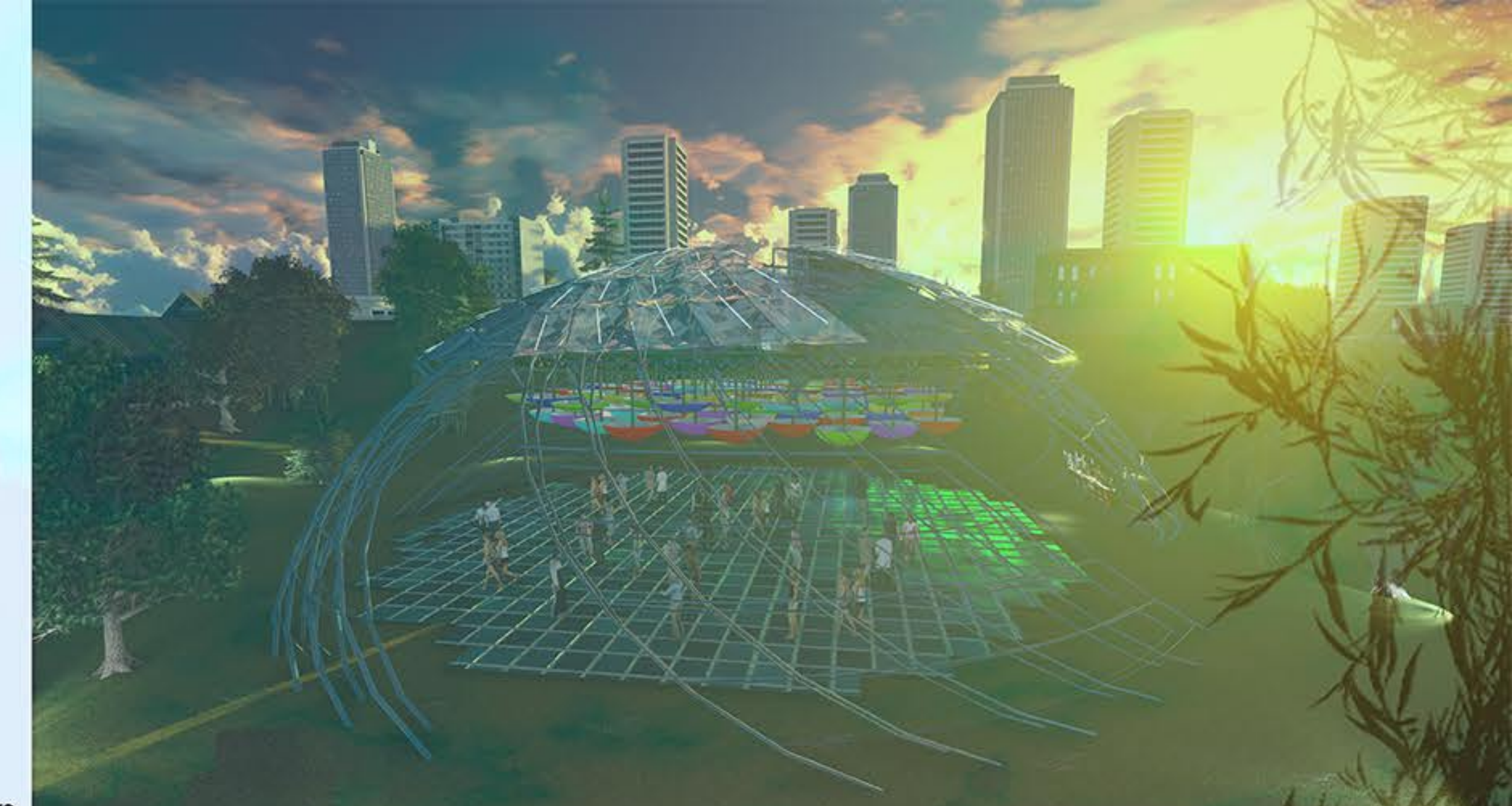
This specific place was chosen to locate the “DANCE ENERGETICLY” structure because it is located right in the centre of the main attractions of the concert that is the three stages and the food court and due to the terrains, offers the best vistas for the



SUSTAINABILITY

The design is using the energy generated within the building envelop. It can function without generating any pollution rather than just reducing pollution. The design uses at its base the three most critical aspects of sustainable buildings:

- **A high performance “building envelope” (floors/walls/roof)-** Through Low-impact materials: choosing non-toxic, sustainably produced or recycled materials like steel which require little energy to process.
- **High-efficiency building systems** i.e. meaningful innovations like using technologies like piezoelectricity and concentration of solar power panels
- **Minimally-invasive site design** Being extremely lightweight, steel frame construction requires lighter foundations and reduced footprint. On steeply sloping terrain, this can reduce site disturbance.



SPREADING AWARENESS:

Promoting energy awareness is an integral part of this proposal

Peizo tiles

The fact that the piezoelectric floor will be seen and physically walked on provide constant reminder of the sustainable practices going on. The energy harvested through the mechanism is also being used to rotate the umbrellas hanging on top which will make the people conscious about it too.

C.S.P.

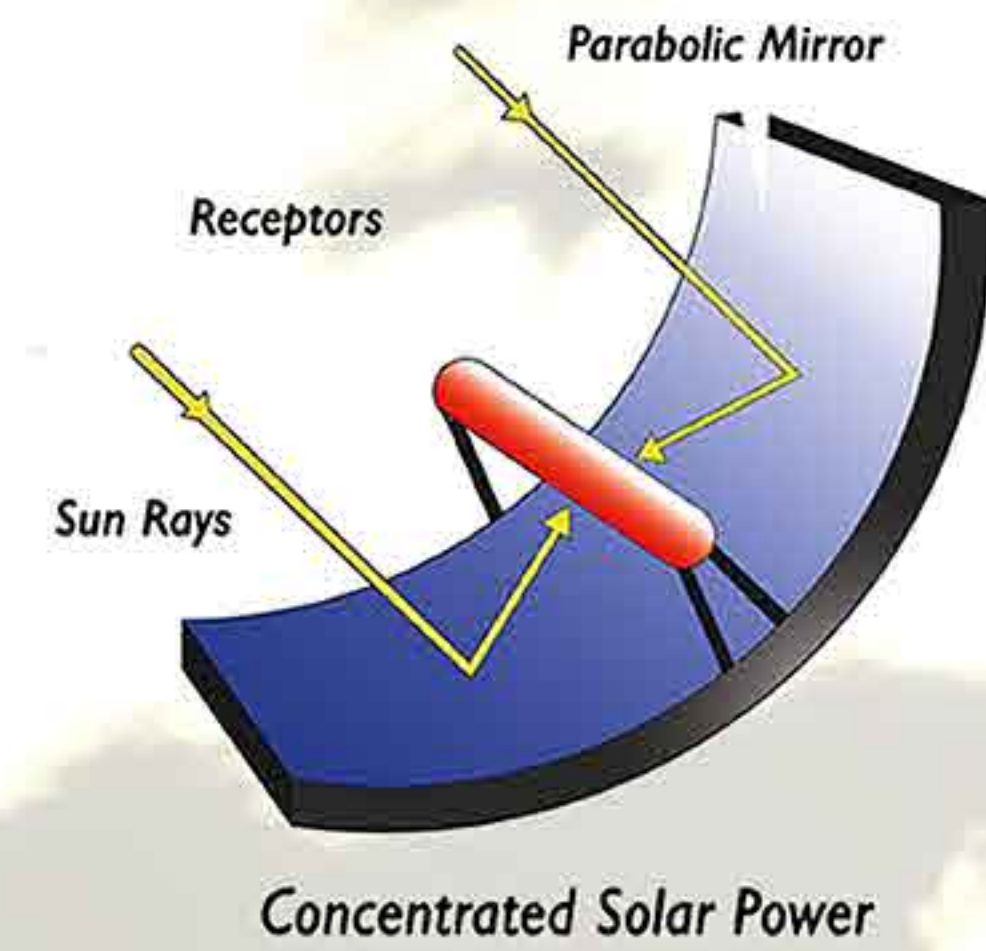
The energy generated through this source will be used to run the music systems, lighting and the LCDs installed in the structure to enhance the experience and mood of building.

This physical reminder will also be supplemented through signages and electronic displays in and around the site displaying information about the system and the energy harvesting capabilities.

CONCENTRATED SOLAR POWER TECHNOLOGY (CSP)

It uses focused sunlight to generate electricity.

Trough systems based on C.S.P. technology uses large, parabolic reflectors that have oil-filled pipes running along their center, or focal point. The mirrored reflectors are tilted toward the sun, and focus sunlight on the pipes to heat the oil inside to as much as 750°F.

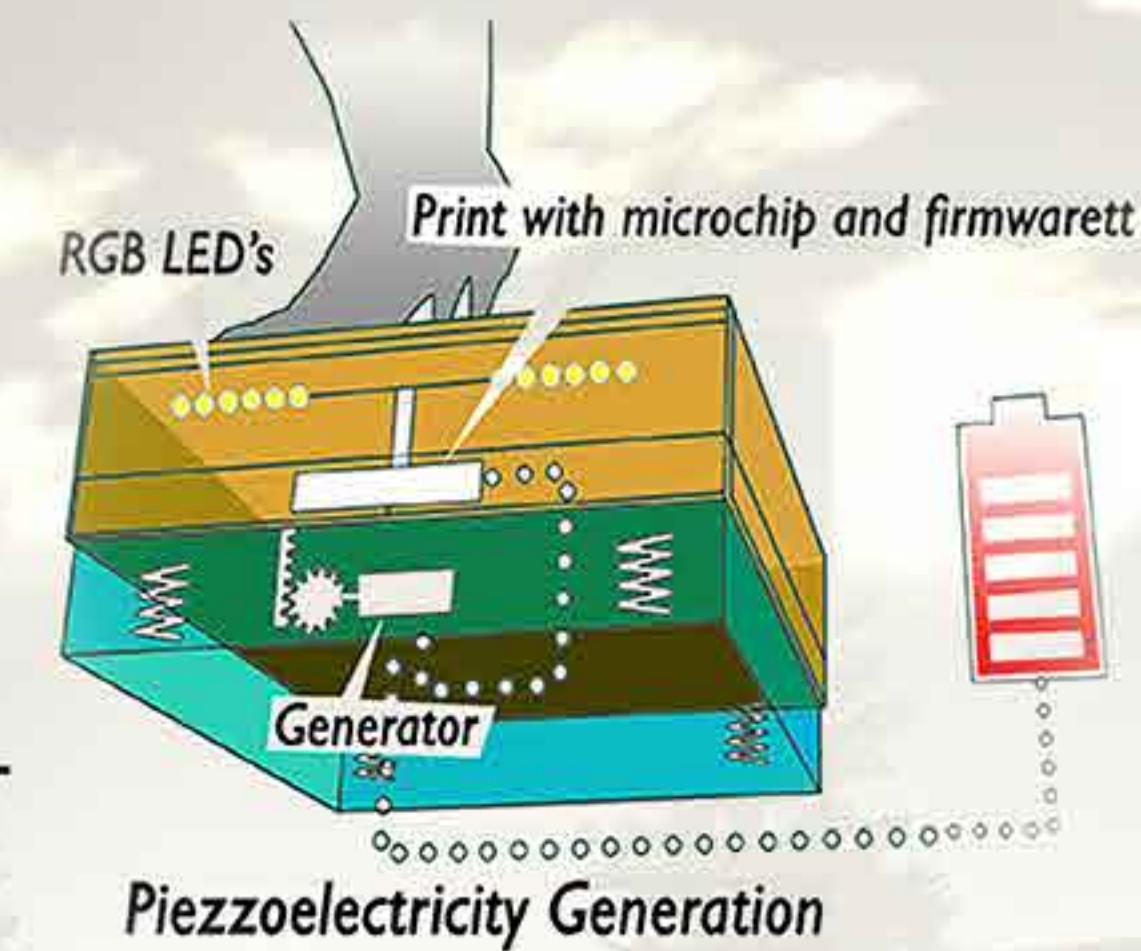


PEIZOELECTRICITY

A piezoelectric floor generates electricity through the deformation of the material under a load due to the high foot traffic of the site during the musical fest, the energy harvested potential and energy awareness can be recognized.

The tiles can be installed on top of the current floor and will be connected to an inverter, which will connect the energy generated to the electrical system in any peripheral electronics like a television display.

This force translates into about 5 watt-seconds per step harvested by the tile.



THE LIGHTS AND THE UMBRELLAR ROTATING WITH

