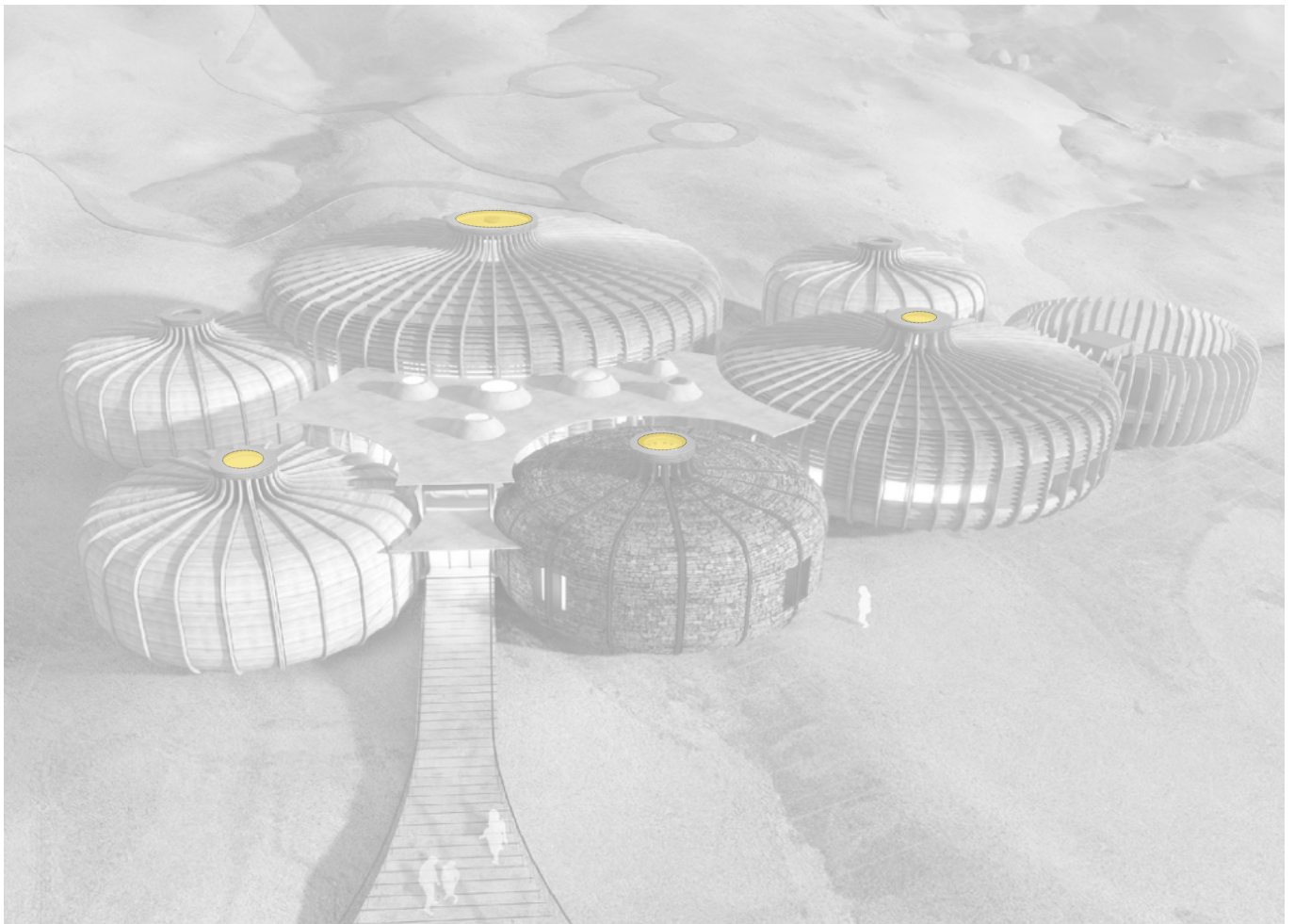


DAYLIGHT STUDIES

JEBEL BUHAIS - GEOPARK - UNITED ARAB EMIRATES



The Buhais Geology Park is situated in an area of prehistoric and geological significance that boasts marine fossils that are over 65 million years old. Marc Goodwin



The project consists of five main pod-shaped buildings, plus an extra pod that's used as an additional service building. They are of varying size and are finished in steel panels which are arranged to give them their distinctive look.

"The geometry of the pods was inspired by the fossilized urchins present on site and developed into a typology which could be sized to suit the Centre's different functions," says Hopkins Architects. "To minimize disruption to the existing fauna, geology and terrain, the pods were designed as pre-fabricated concrete structures and only lightly touch the ground on in-situ reinforced concrete foundation discs."



The Buhais Geology Park consists of five main pods of varying size, plus a sixth pod used as a service building Marc Goodwin

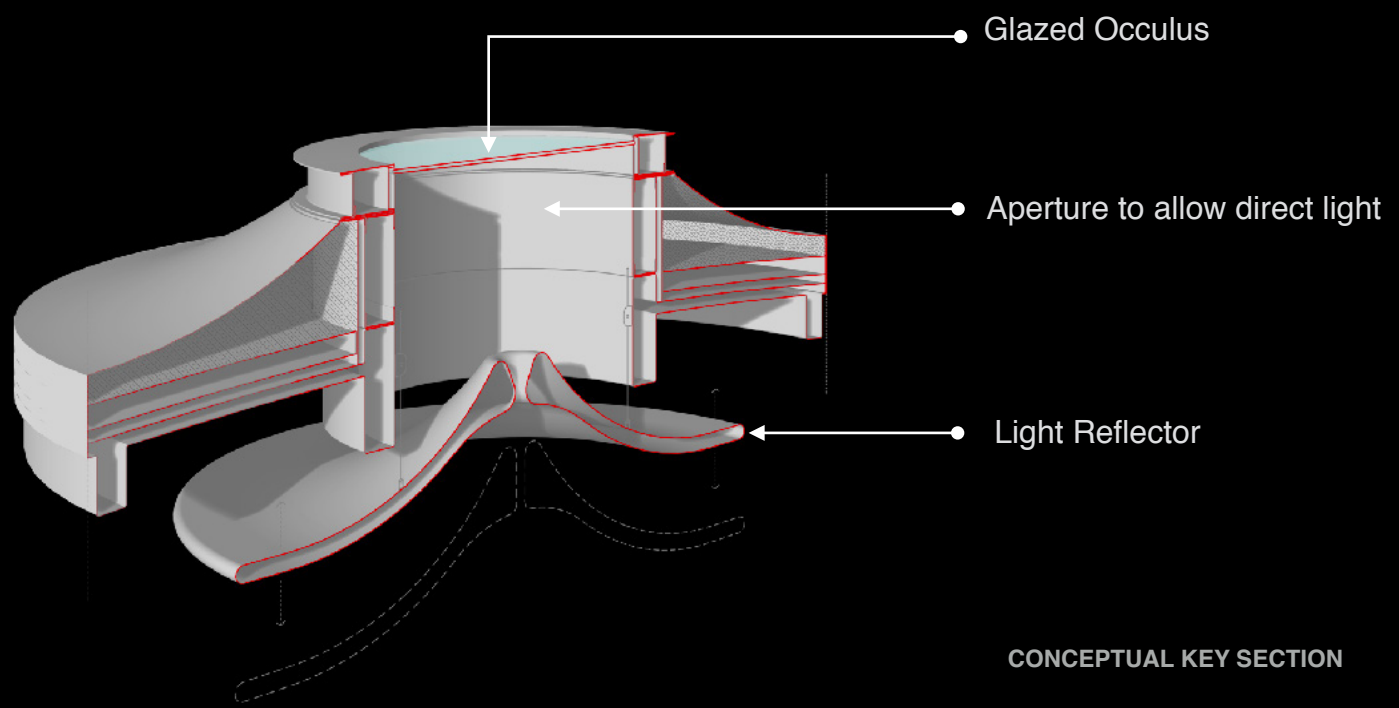


The idea is to provide daylight from the aperture of each module into the indoor spaces.

OCCULUS



DAYLIGHTING PLAN



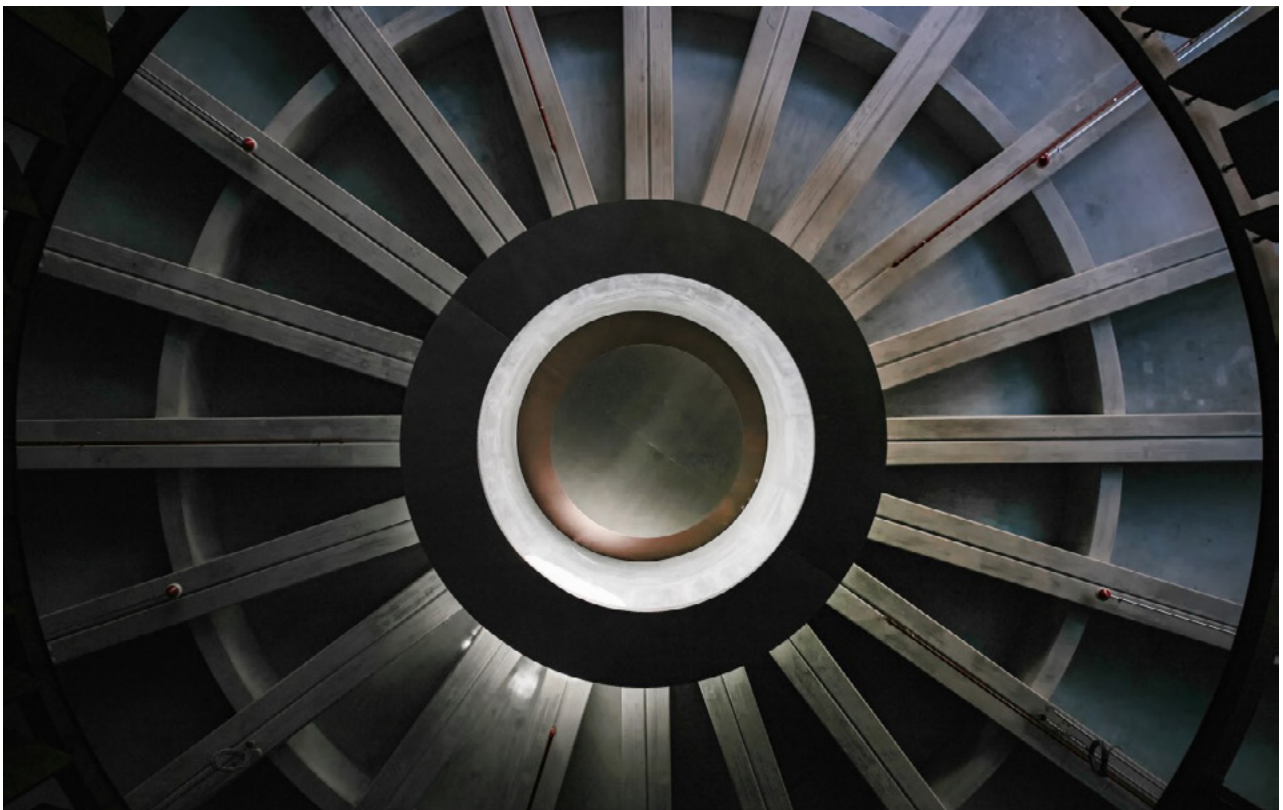
- Glazed Oculus
- Aperture to allow direct light
- Light Reflector

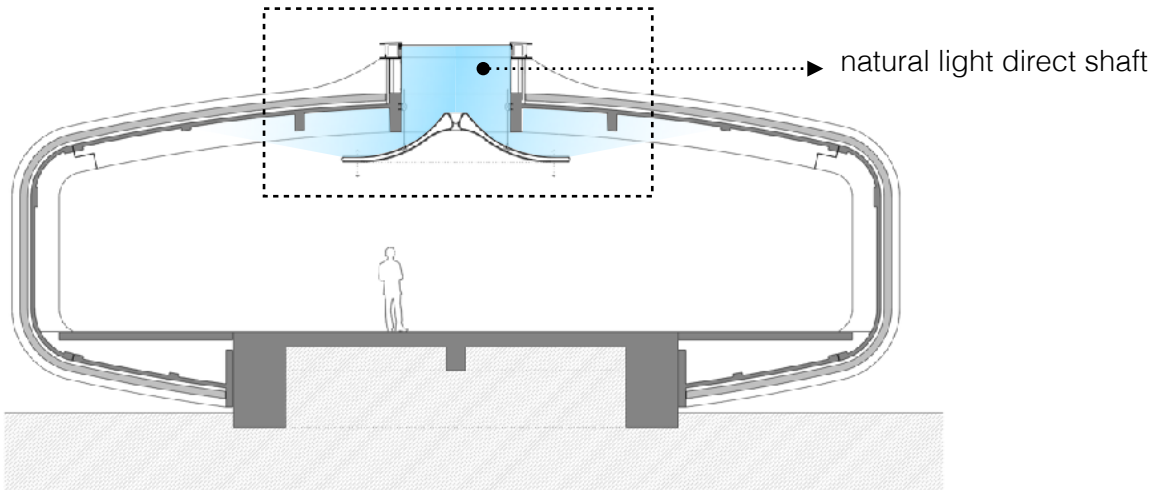
CONCEPTUAL KEY SECTION



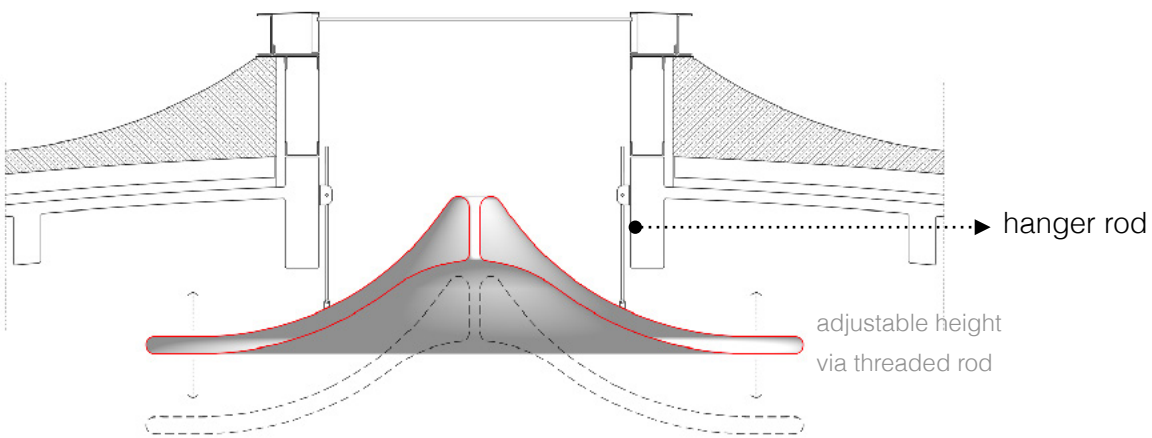
The Buhais Geology Park consists of five main pods of varying size, plus a sixth pod used as a service building Marc Goodwin

The park is linked to a walking trail that encourages visitors to explore the nearby mountains and viewing areas, plus natural rock formations, ancient burial grounds, and other attractions.

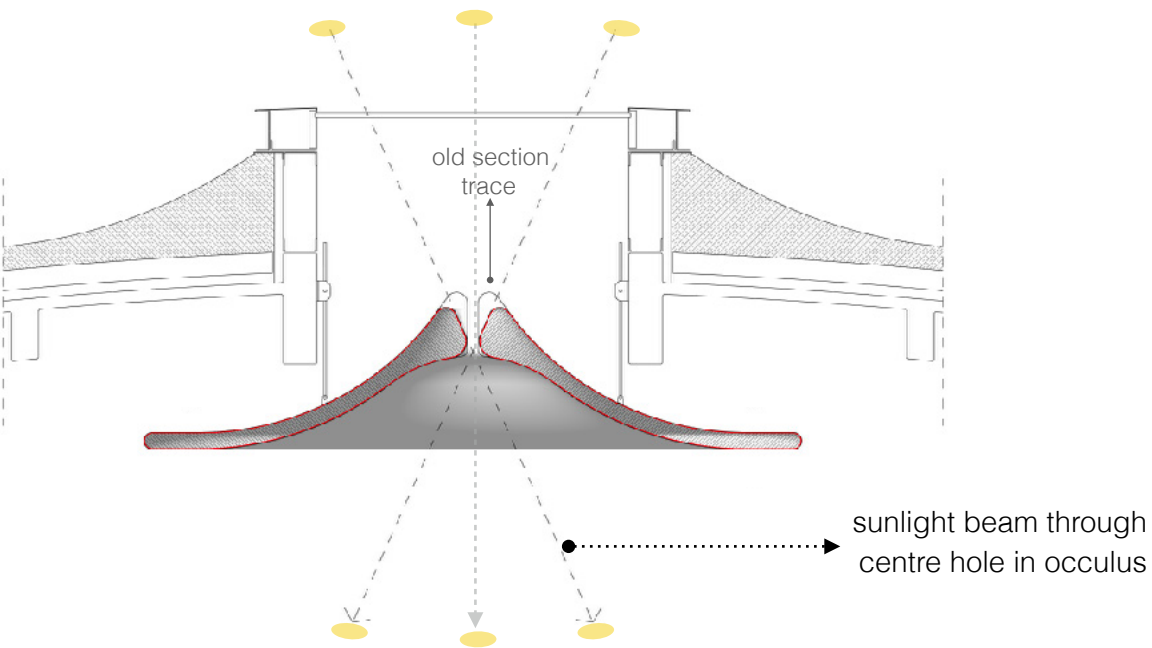




Indirect daylight is taken into exhibition modules via occlus projected to ceiling by sunlight reflector.

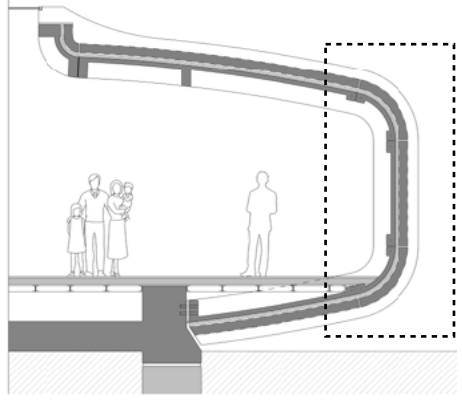


The amount of reflected daylight to the ceiling can be controlled by adjusting the height of the reflector.

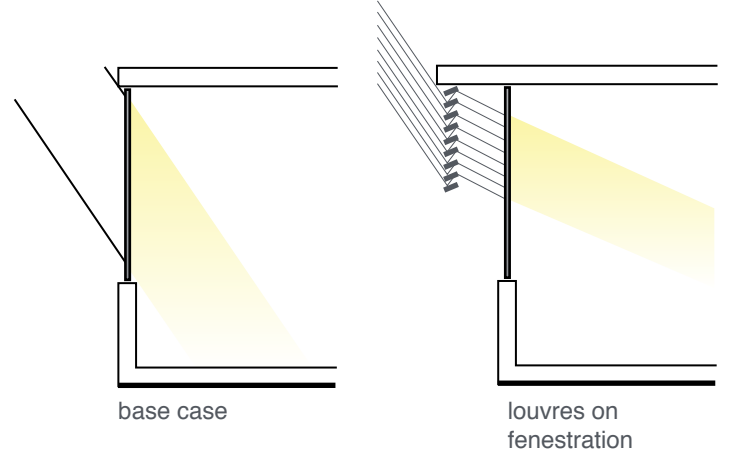


Section of central hole on reflector is revised to achieve more spotty effect.

LOUVRES

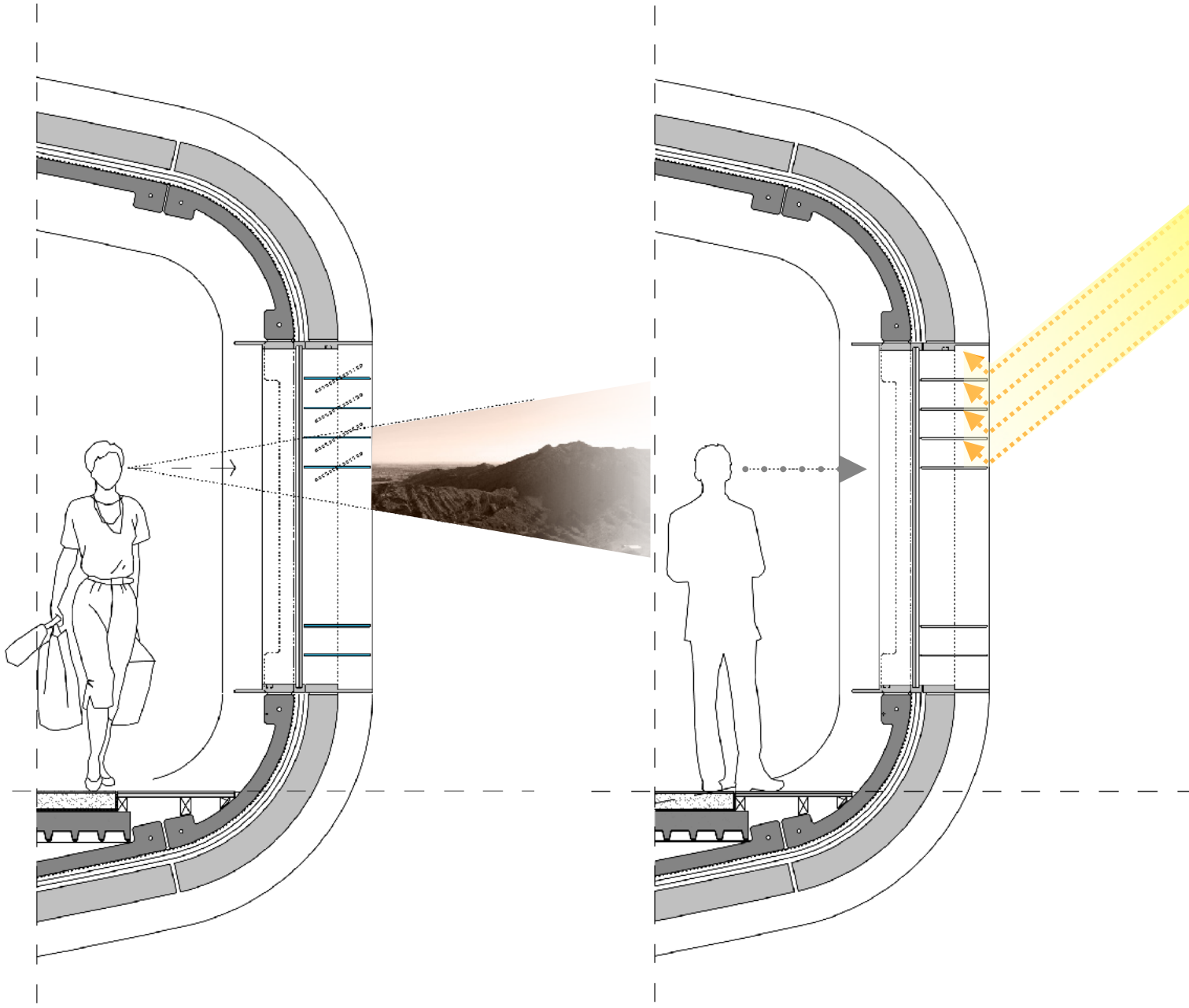


key section



base case

louvres on fenestration



- Louvres on the facade area designed to block the direct sunlight and extend the useful range of perimeter daylighting into the space.
- Non- rotatable horizontal louvres are located along the fenestration to capture outside view for visitors.



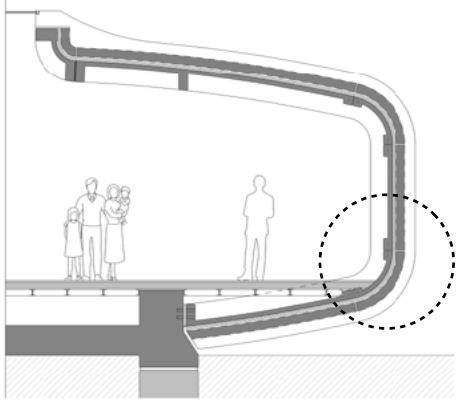


The Buhais Geology Park's interior includes exhibition areas, an immersive theater and a cafe with choice views of the area, as well as other facilities Marc Goodwin

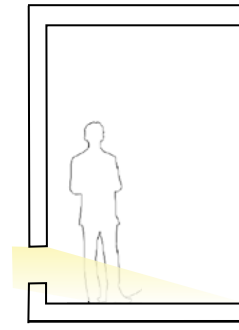
The Buhais Geology Park's interior features exhibition areas highlighting the region's interesting geology. There's also a theater and a cafe offering choice views. Visitors can examine local rocks and fossils, and a series of interactive displays depict the area's tectonic history, such as the disappearance of an earlier ocean and the creation of limestone mountain ranges.



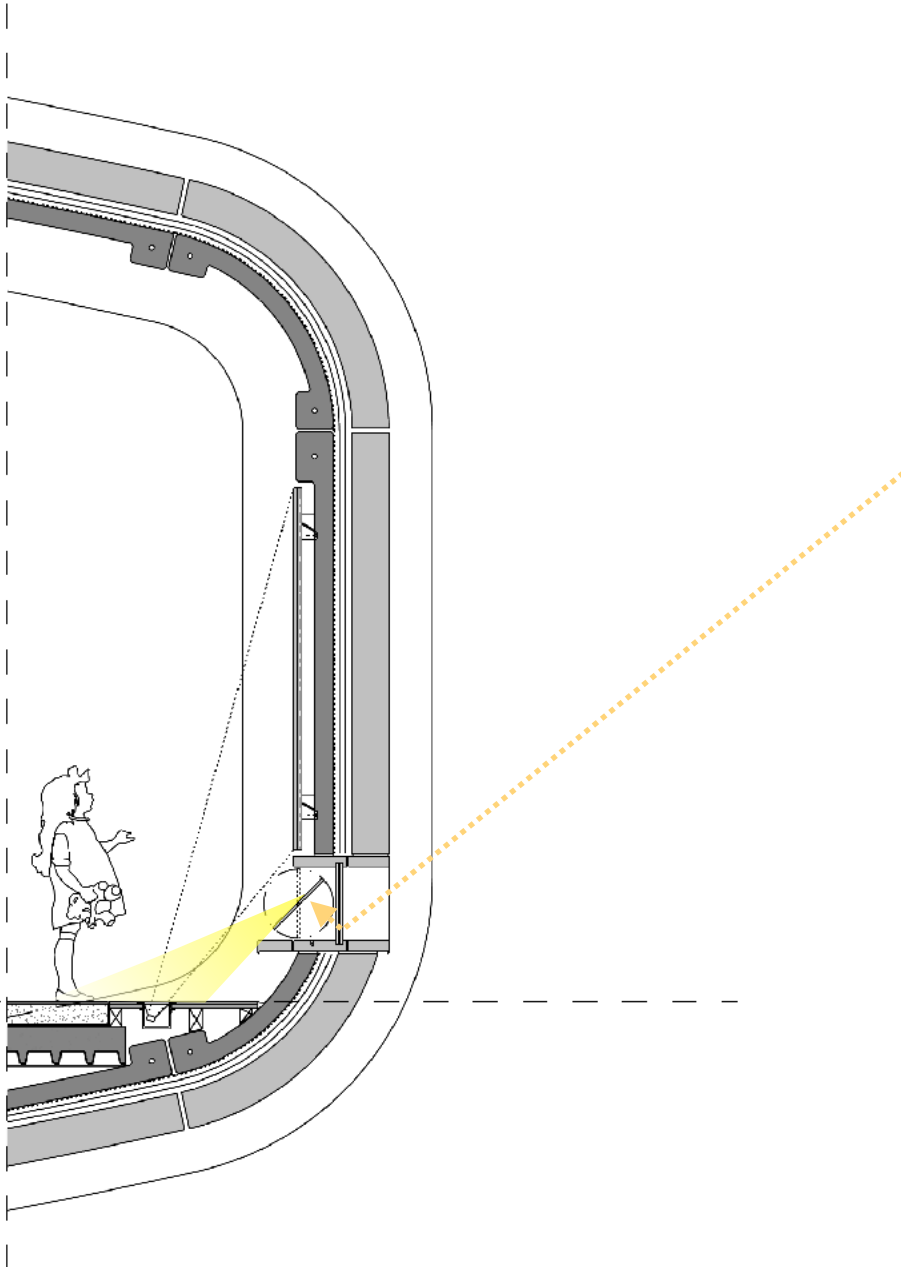
DAYLIGHT SLOT



key section



base case



- Daylight slots are designed to get indirect daylight the exhibition area.
- This will reduce glare effect of sunlight and provide homogenous light distribution for the circulation.



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