



SECRET OASIS

A prototype of a living machine in Somalia.

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Content

- Where does the Project locate?
- Why is the Project being done?
- How is the Project being formed?
- What is the project?

An aerial photograph showing a vast expanse of dry, cracked earth. The ground is covered in a dense network of irregular, polygonal cracks, creating a mosaic-like pattern of brown and tan soil. The cracks vary in width and depth, and the overall appearance is one of extreme aridity. A few small, dried leaves are scattered across the surface.

Where does the Project locate?



Somalia - Somaliland

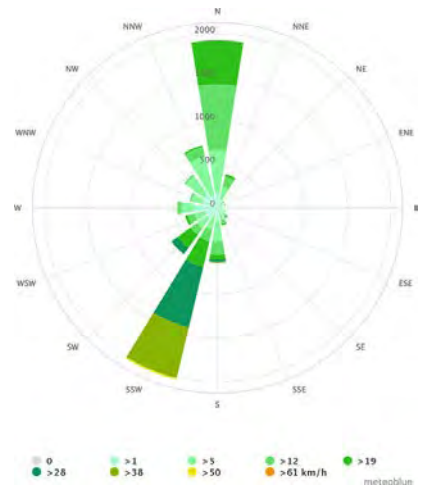
The project locates in Hargeisa, Somaliland where is a de facto state in the Horn of Africa, considered internationally to be part of Somalia.



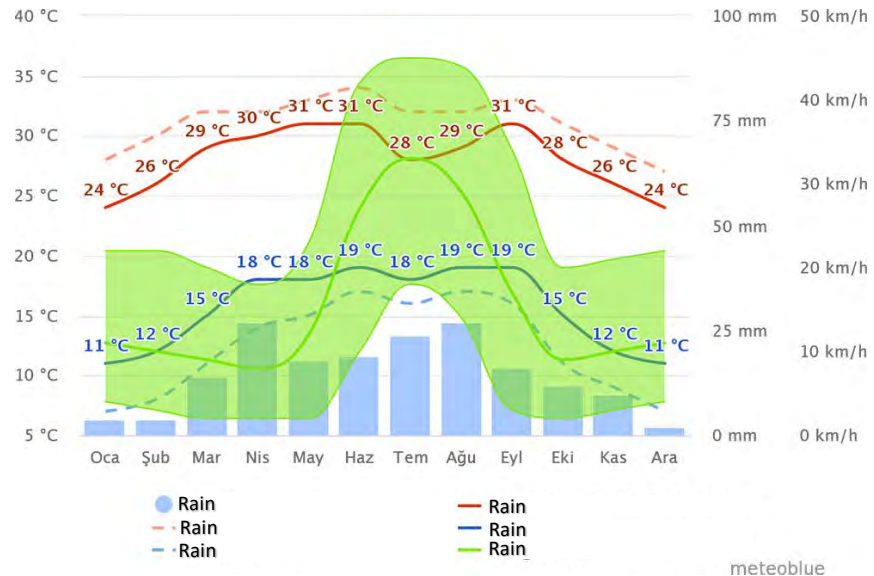
Features of Hargeisa

- The city is the capital of Somaliland.
- The population of the city is 2,200,000. The city is the second largest city in Somalia.
- The city has twin hills which is called Naasa Hablood near the accomodation area.
- The hills are around 6 km away from the city center.

Naasa Hablood



Naasa Hablood (Somali: Naaso Hablood), also known as Virgin's Breast Mountain, are twin hills situated in Maroodi Jeex, Somaliland. Located on the outskirts of the city of Hargeisa, they are made up of granite and sand. The hills were dubbed Naasa Hablood ("girl's breasts") due to their distinctive conical shape and resemblance to thelarchic breast buds.



An aerial photograph showing a vast expanse of dry, cracked earth. The ground is a reddish-brown color, and the cracks form a complex, irregular pattern of polygons across the entire surface. A few small, dry leaves are scattered on the ground.

Why is the Project being done?

Problems in Somalia



Complex crisis

The humanitarian crisis in Somalia is one of the longest and most complex in the world. The country is experiencing both armed conflict and worsening climatic shocks across different regions, a dangerous combination that has resulted in massive displacements, both within Somalia and across its borders.



Extreme weather conditions

In 2011, 260,000 people died from a famine in Somalia. Half of them were children. Five years later, Somalia experienced another prolonged drought from 2016 to 2017 that displaced over a million people. In 2019, the impact of drought has threatened hundreds of thousands lives, placing additional strain on communities, stretching available humanitarian resources and displacing 300,000 people.



Poor health

Massive displacement and food insecurity have a major effect on the health of the population. 1.5 million people need humanitarian assistance in 2019 due to inadequate nutrition.

In 2019, almost one million children risk being acutely malnourished, carrying severe implications for their future health and that of subsequent generations. This is among one of the factors that cause one out of seven children to die before they reach five years old.



Fleeing to the big cities

The different factors within Somalia's crisis are forcing people to move to urban areas to seek humanitarian assistance. The need for space, food, water and shelter places strain on resources in urban areas. The capacity of host communities with limited systems in place are then stretched, leading to forced evictions and extreme vulnerability among displaced populations.



Hosting other refugees

Somalia also receives refugees from its neighbouring countries. The country currently hosts 39,000 refugees, mostly from Ethiopia and Yemen.

In the coming months, Somalia expects to receive over 90,000 returnees that have been seeking refuge in Kenya and Yemen.



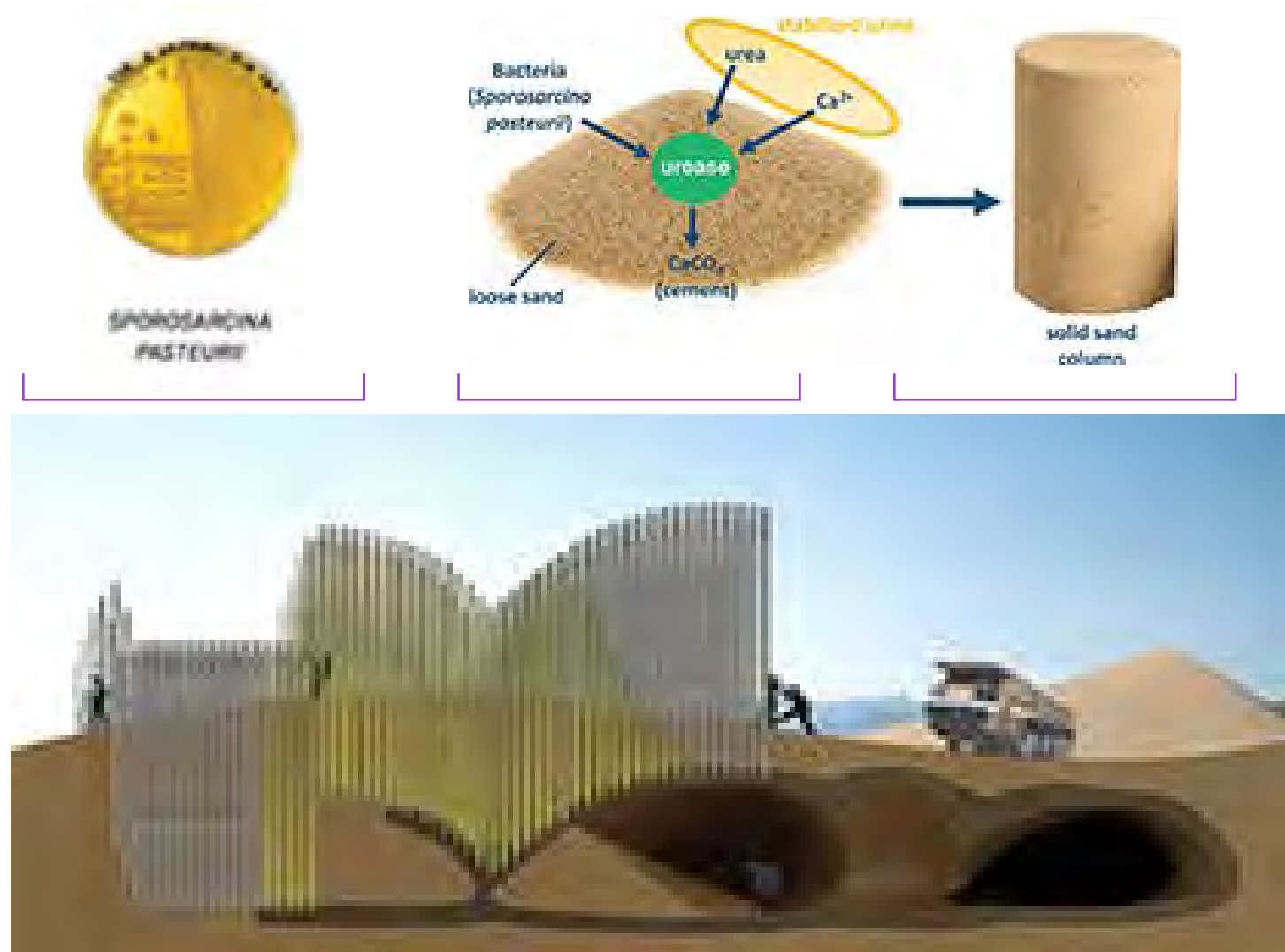
How is the Project being formed?

Bacillus Pasteurii

“It’s synthetic sandstone. All that’s happening is crystals are growing around sand grains.”

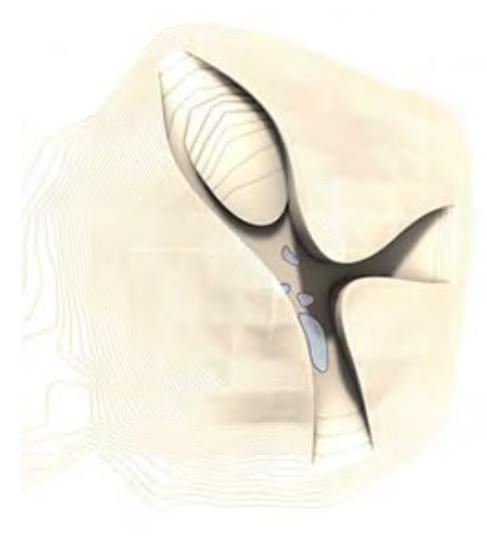
The way in which Professor Ginger Dosier describes her innovative process that has recently won the Metropolis “Next Generation” design competition is accurate, but perhaps slightly over-simplified.

I never ceased to be amazed by friendly bacteria. We may have an instinctively negative view of our super-abundant microbial colleagues, but many of them are really helpful, and we’d be in a bad way without them. Take, for example, the bacteria that munch on natural crude oil in ocean water or in sand; take the wondrous critter, bacillus pasteurii, that can turn sand into sandstone and heal cracks in concrete. And now here, although appearing under a different name, is bacillus pasteurii again.



How the mountain was formed?

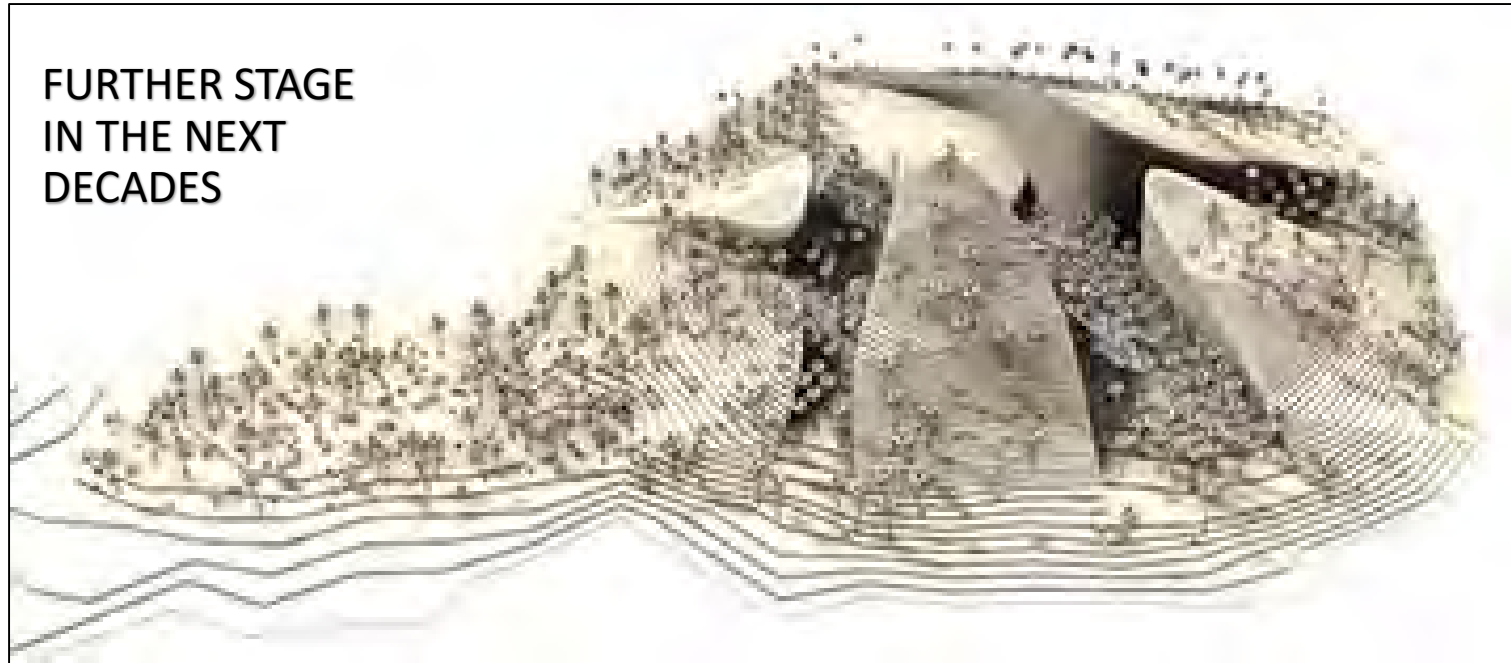
INITIAL STAGE

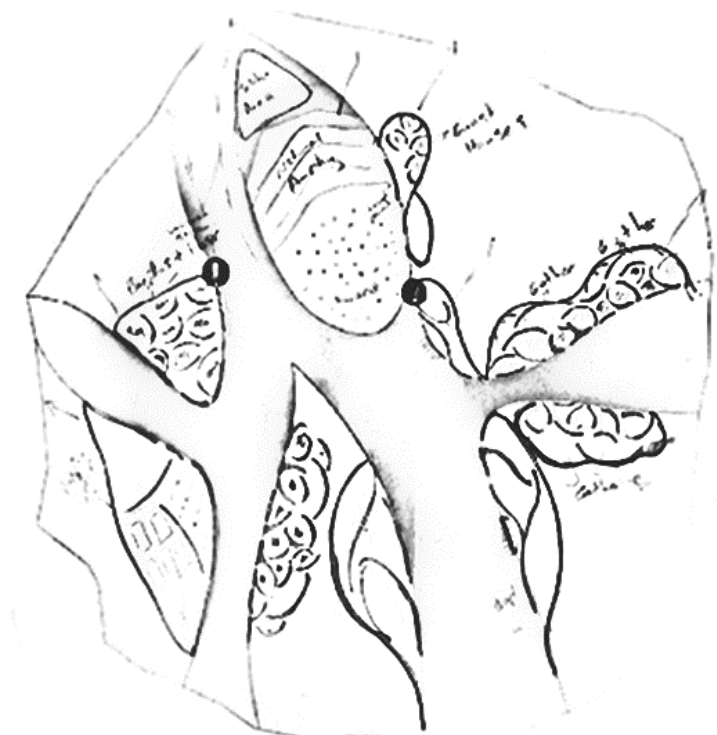
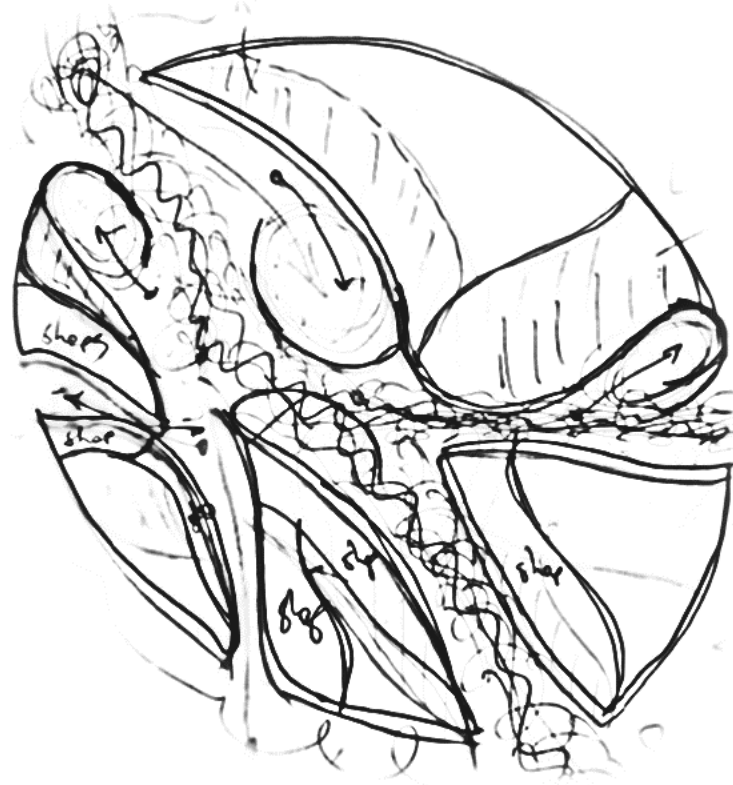
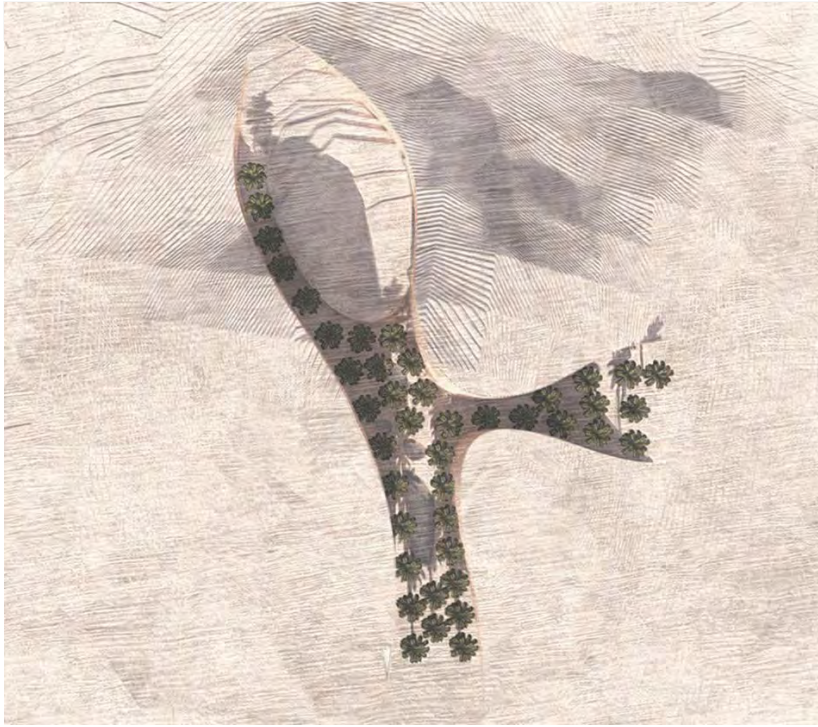


FINAL STAGE



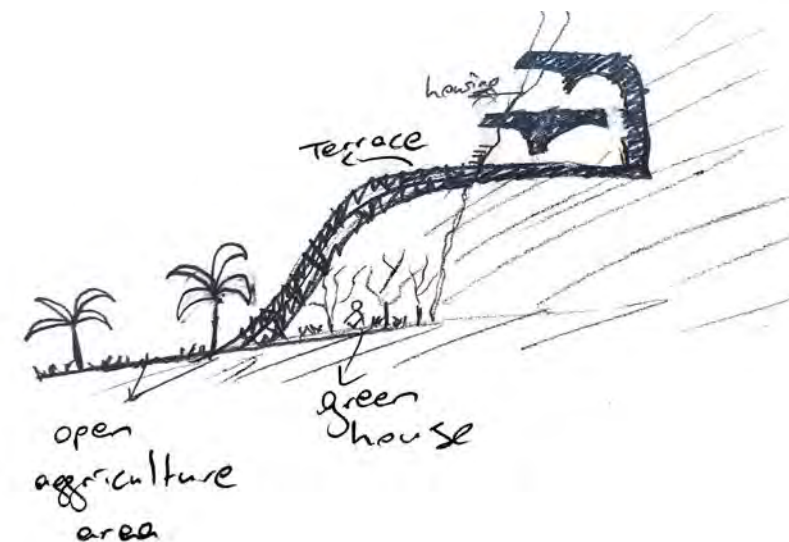
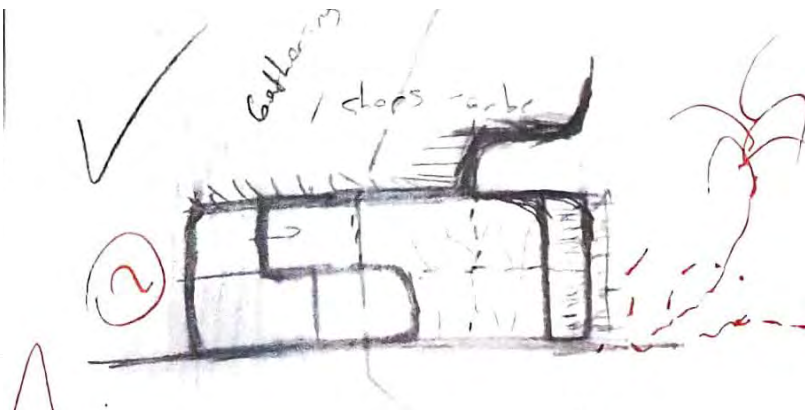
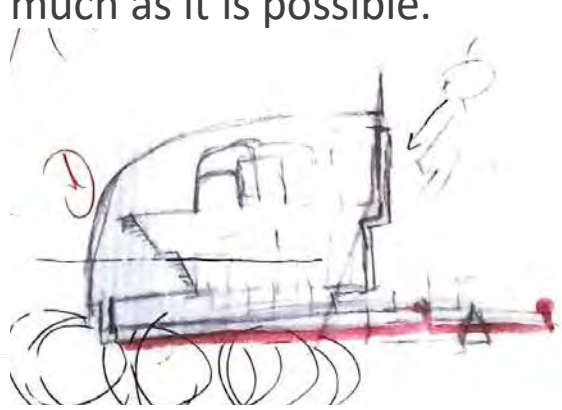
FURTHER STAGE
IN THE NEXT
DECADES





How the forms created.

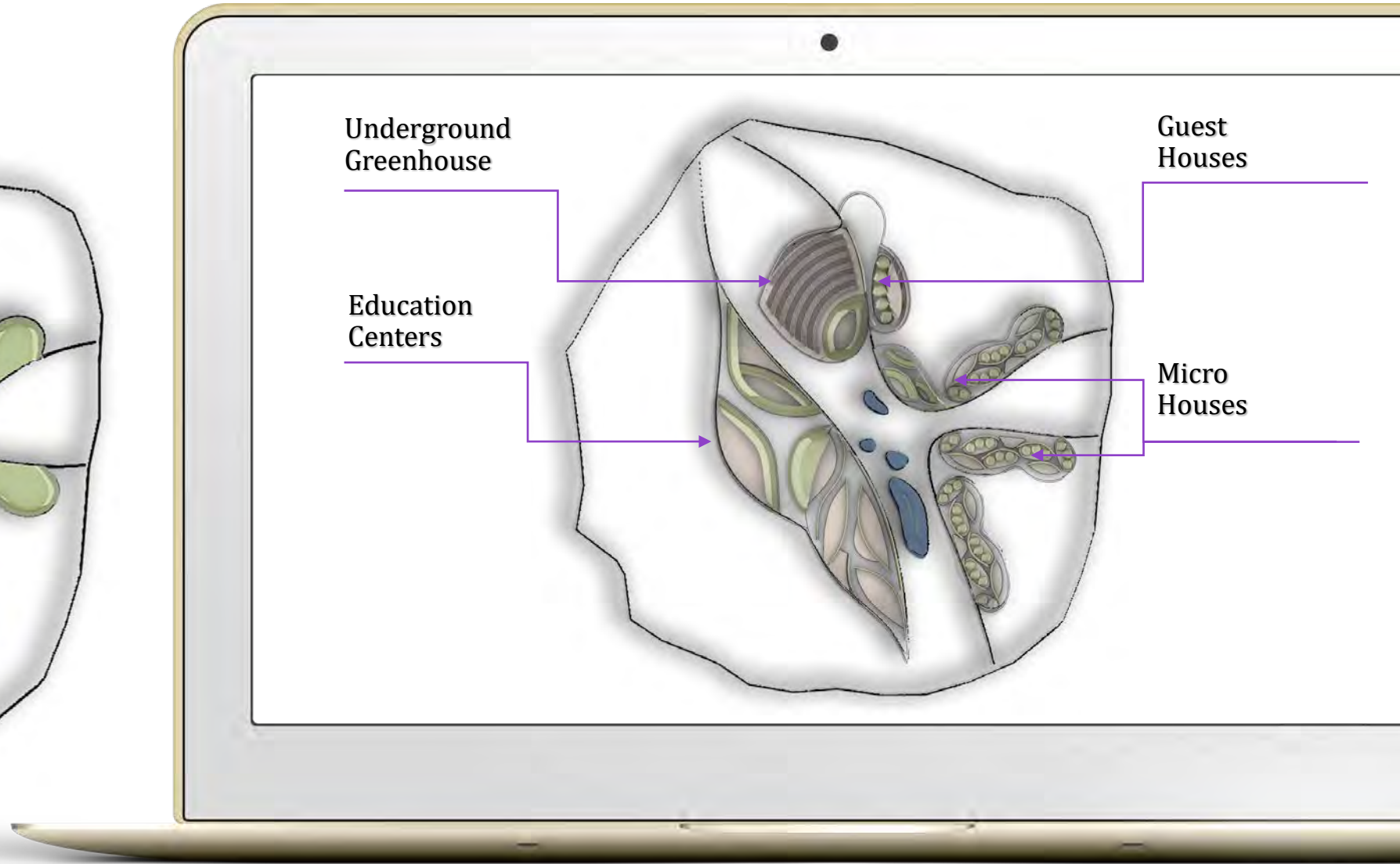
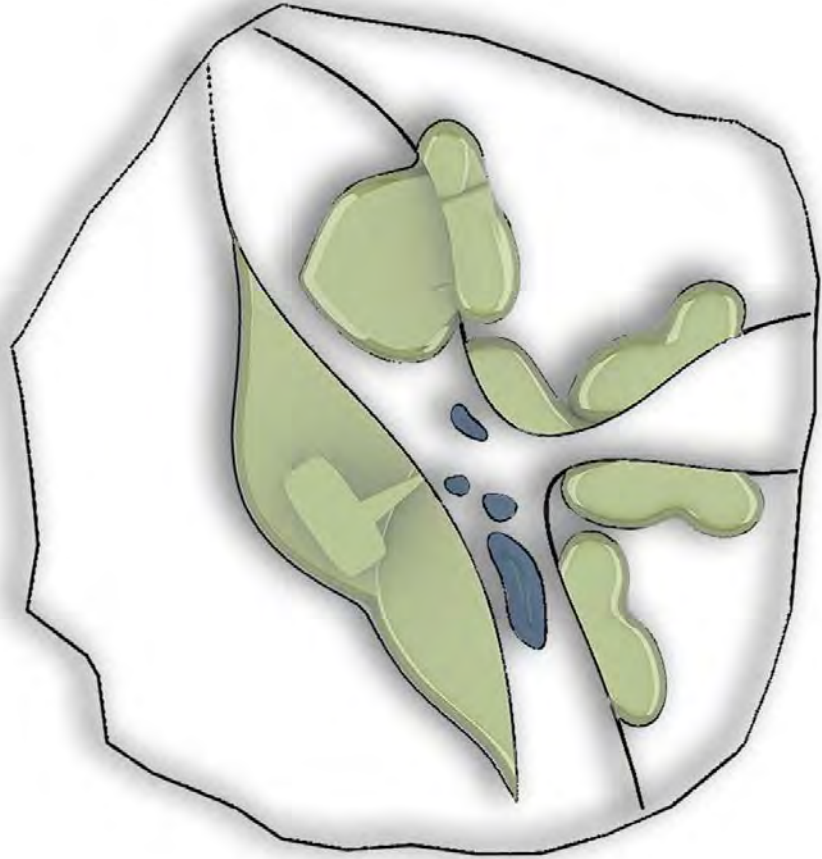
The main aim was using the passive systems and decrease the cost as much as it is possible.



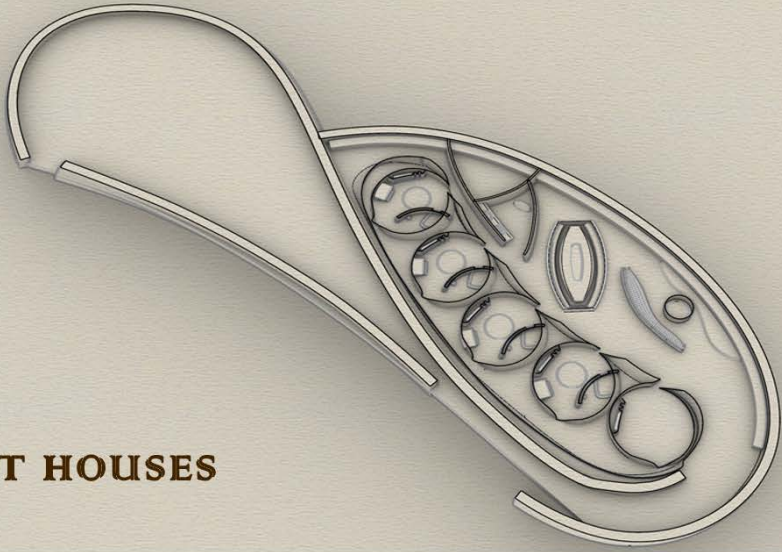


What is the project?

Functions



GUEST HOUSES

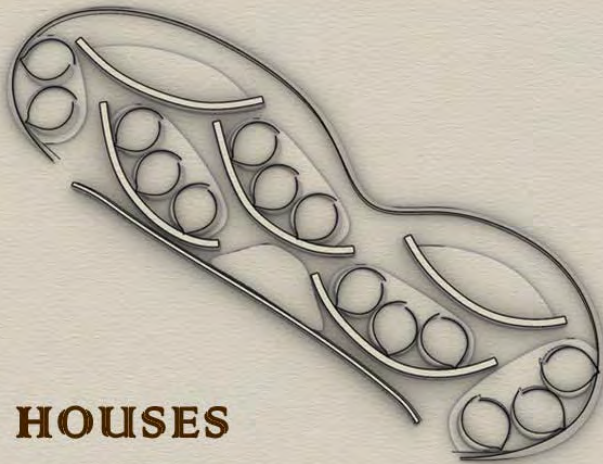


**COMMERCIAL
UNITS**

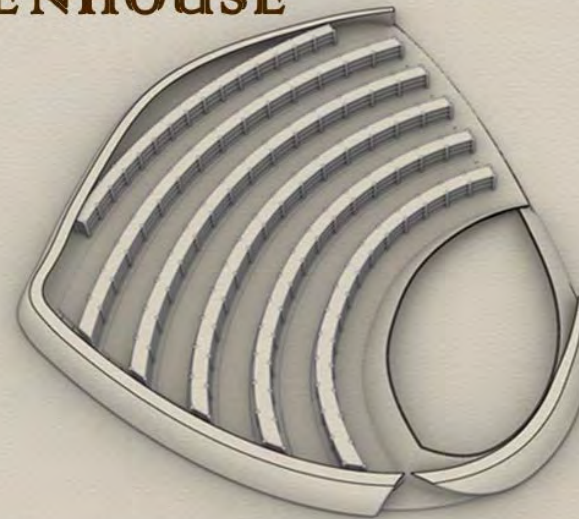


Configuration of the Forms

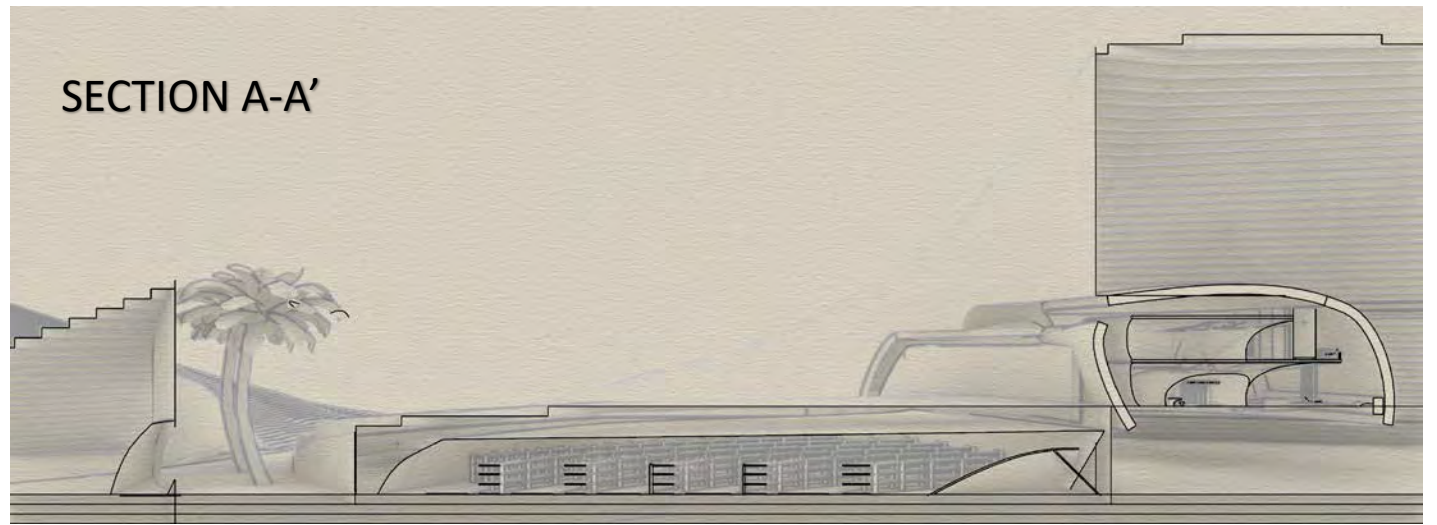
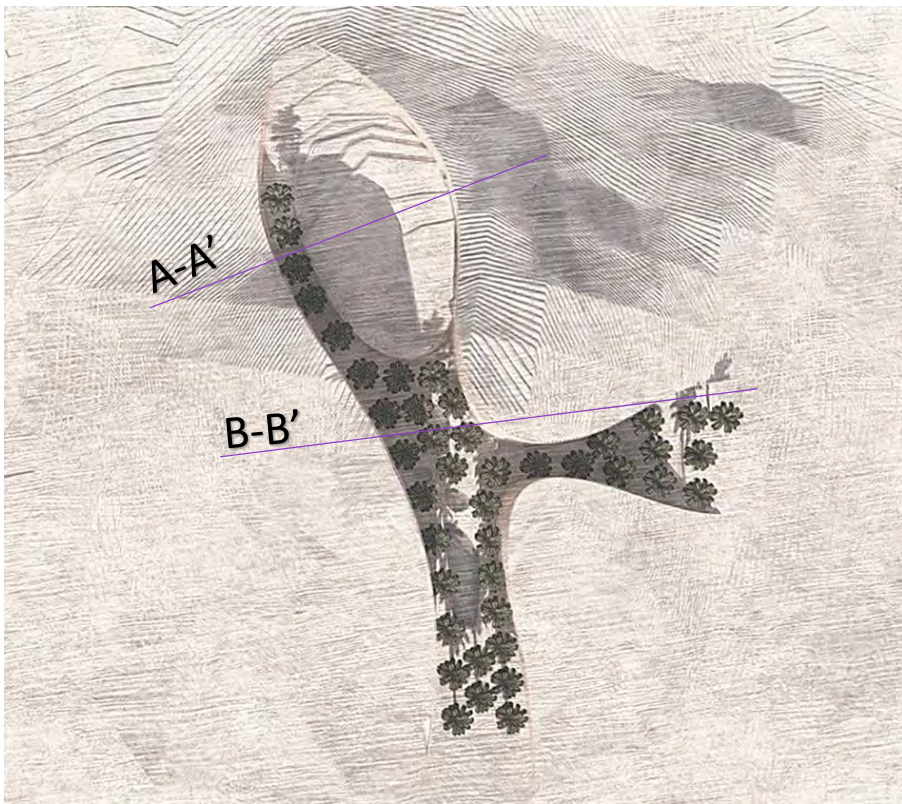
MICRO HOUSES



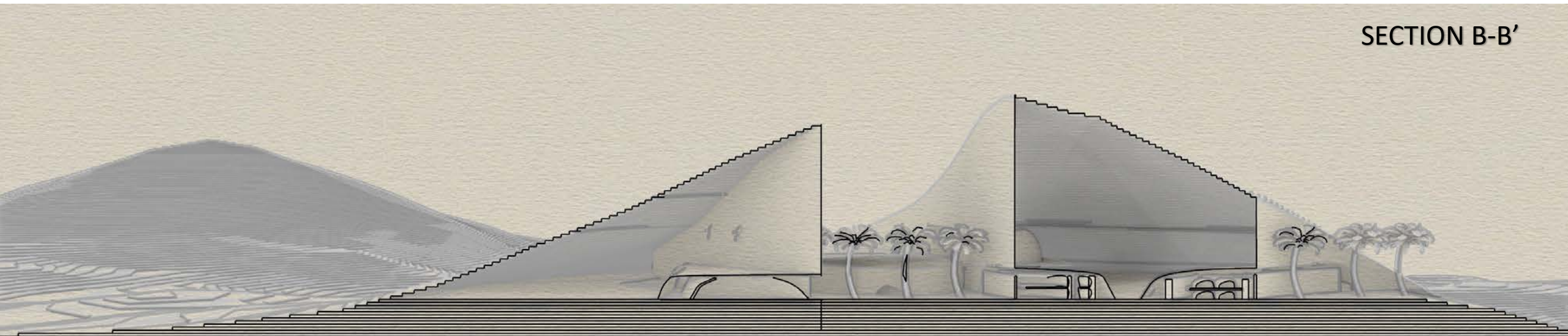
GREENHOUSE

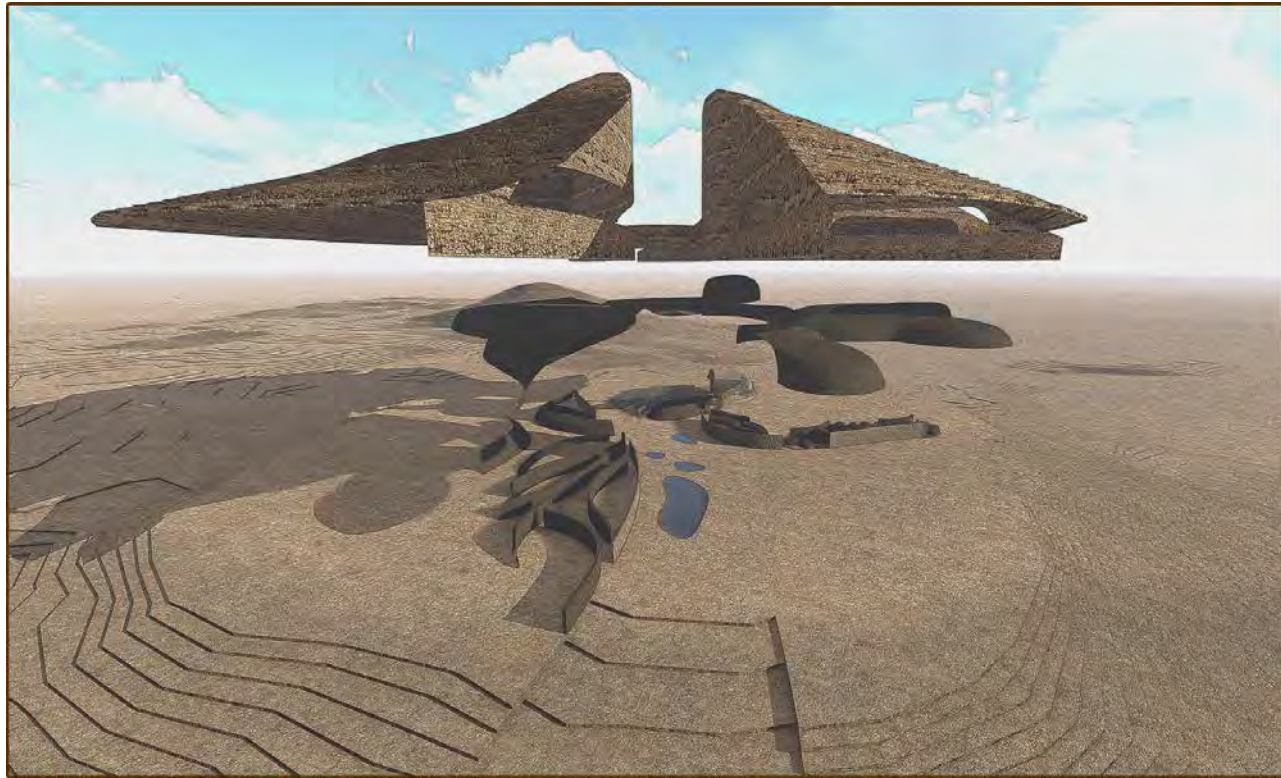


The units create a common areas which are directly connected to the carved area of the mountain aby the ventilation openings and create a active air circulation.

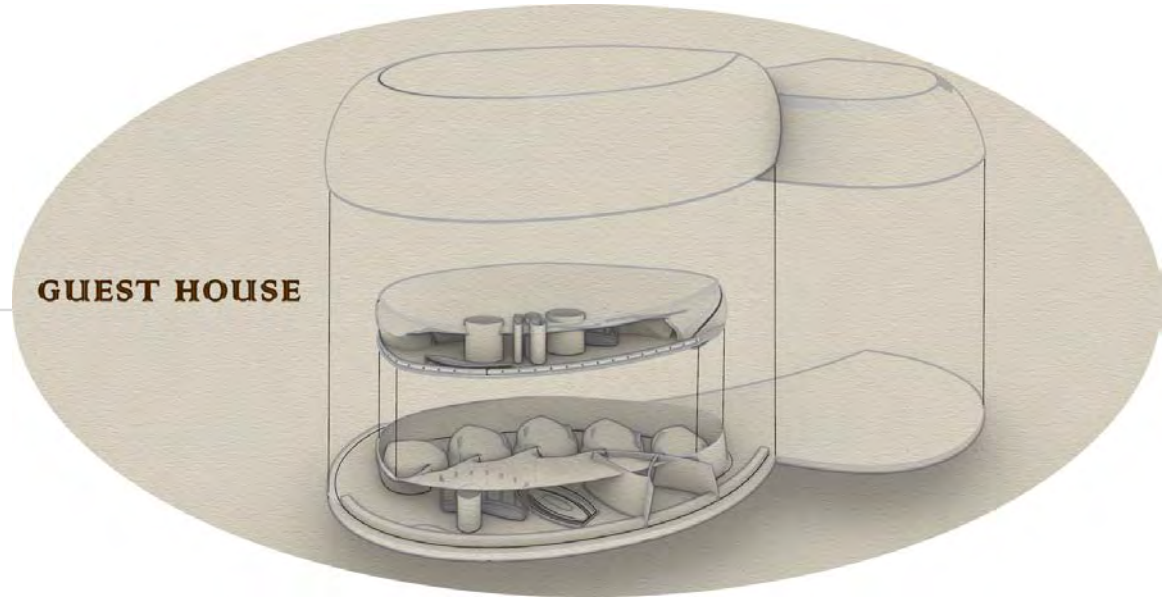


Every function has one façade which opens to carved area in the middle of the mountain. The opening is some kind of a courtyard which creates small oasis. The area works as a cooling zone in this prototype.



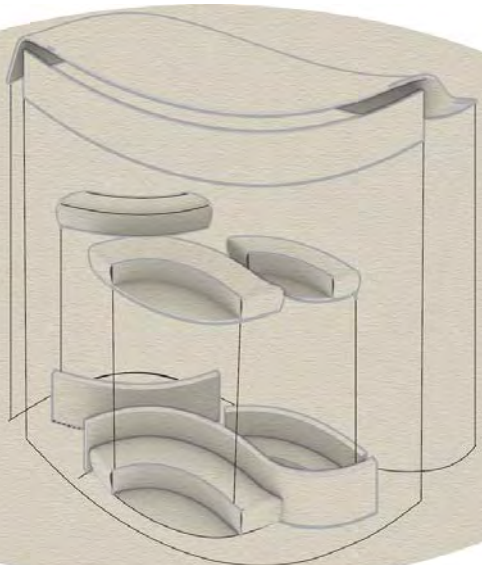


GUEST HOUSE



Exploded Axonometrics

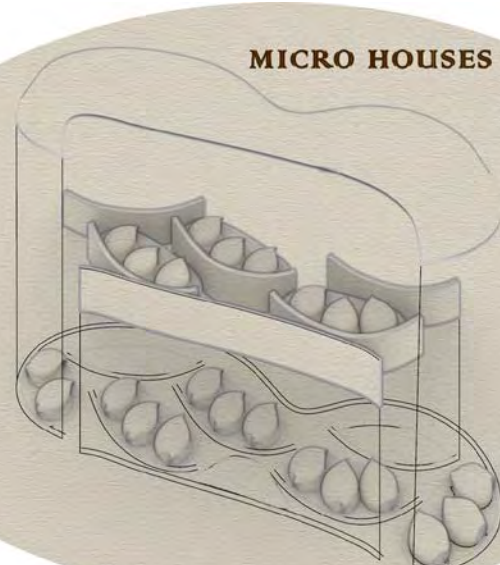
COMMERCIAL AREA



UNDERGROUND GREENHOUSE



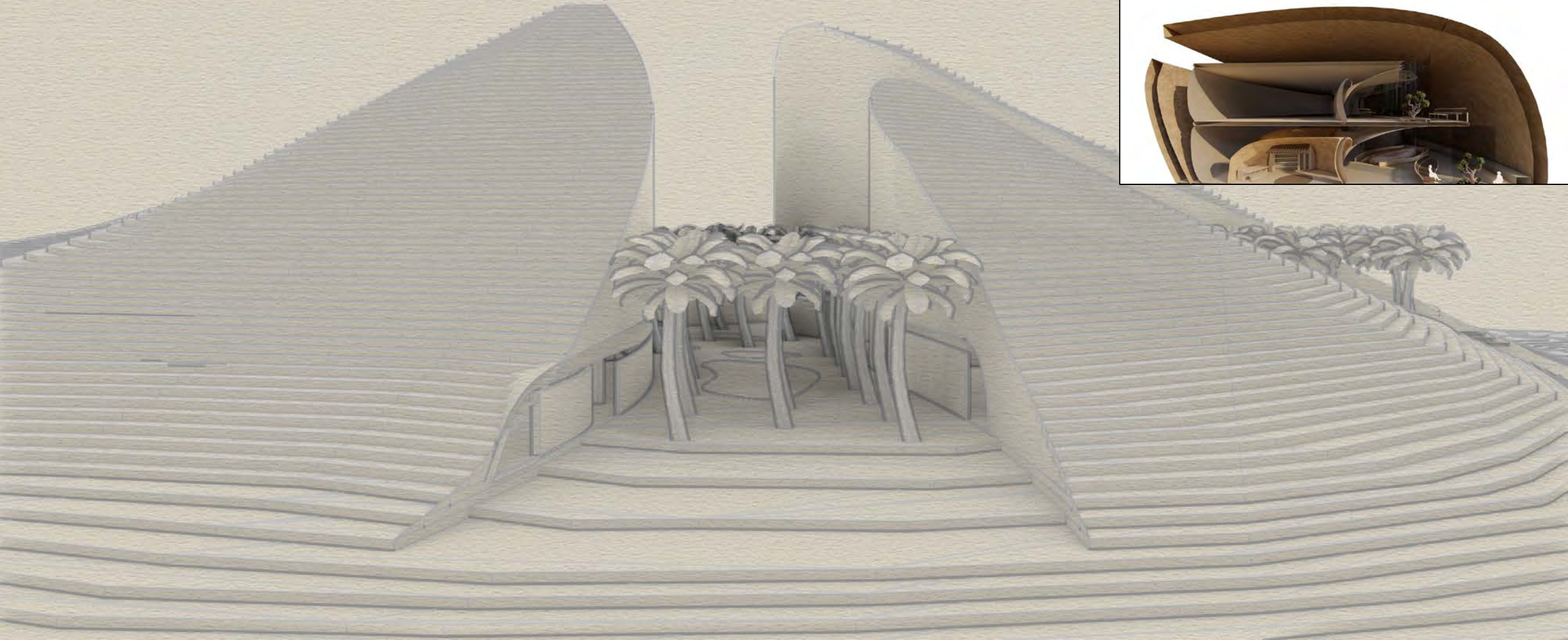
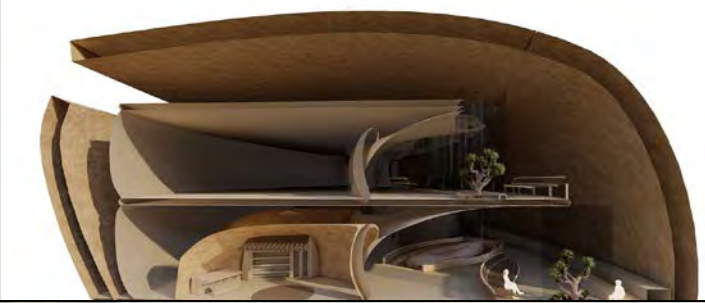
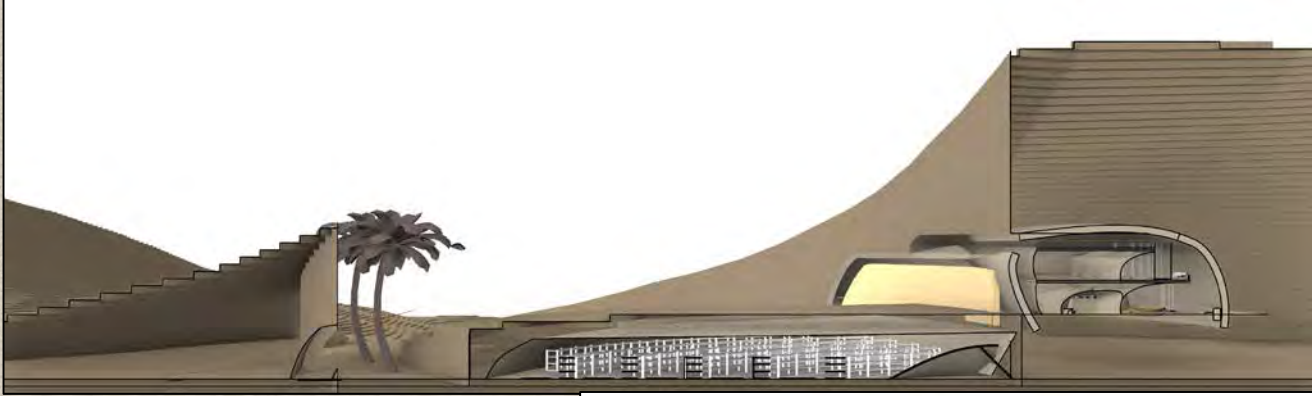
MICRO HOUSES



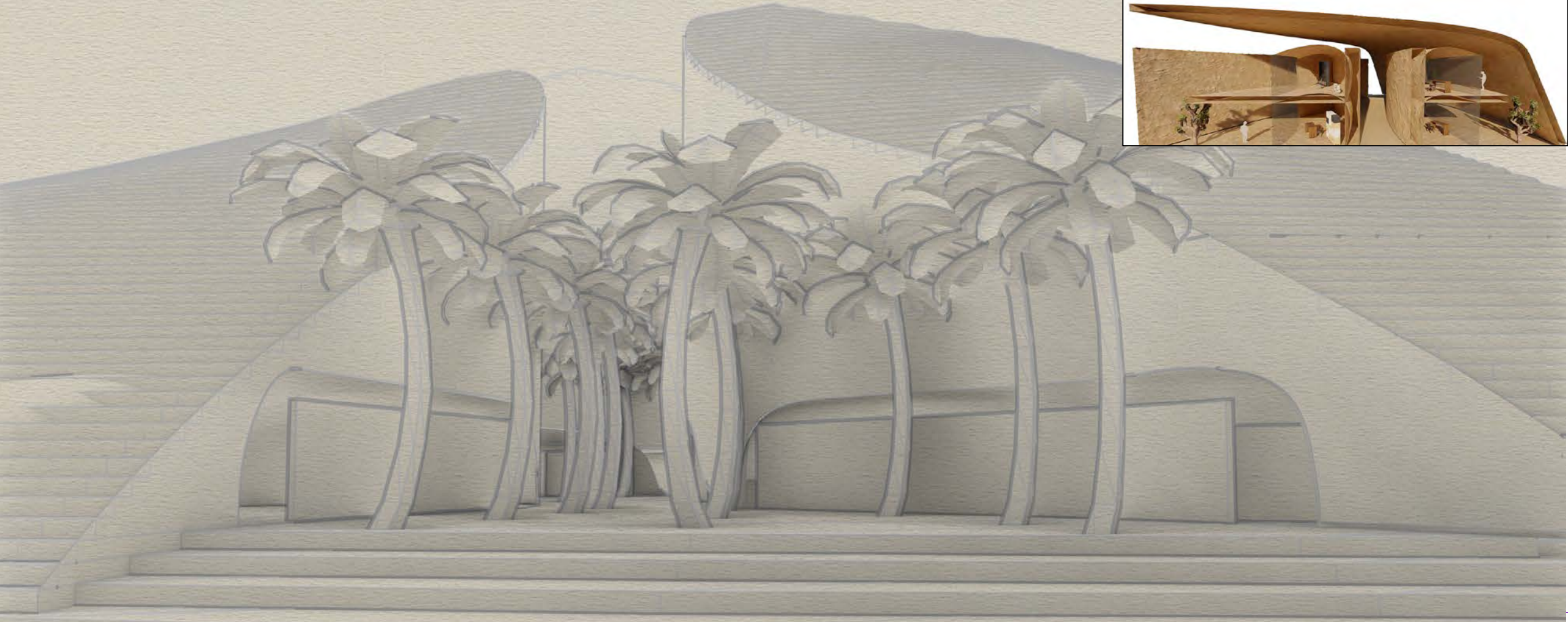
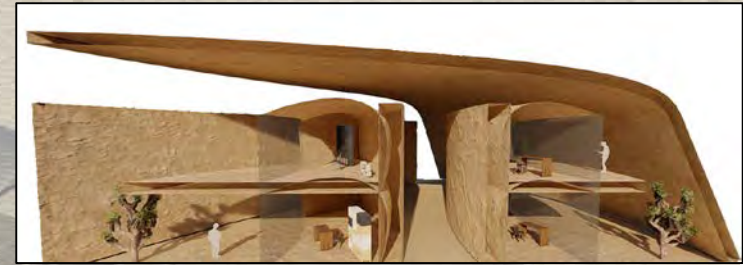


Renders

Relation of Guest House and Greenhouse with the Courtyard



Relation of Education Center and Micro Houses with the Courtyard





Guest House Interiors





Thank you!