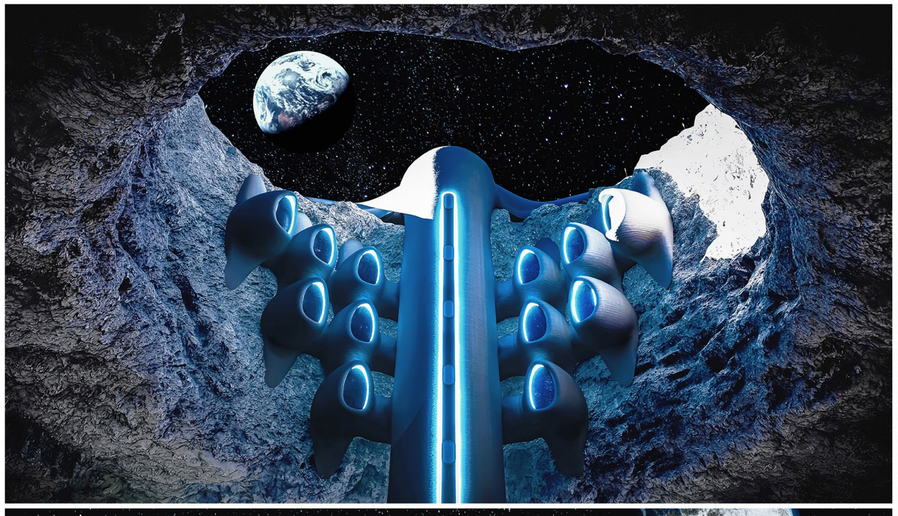
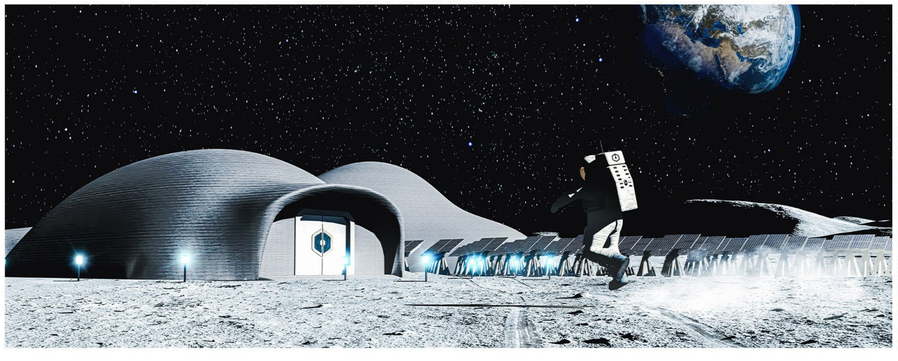
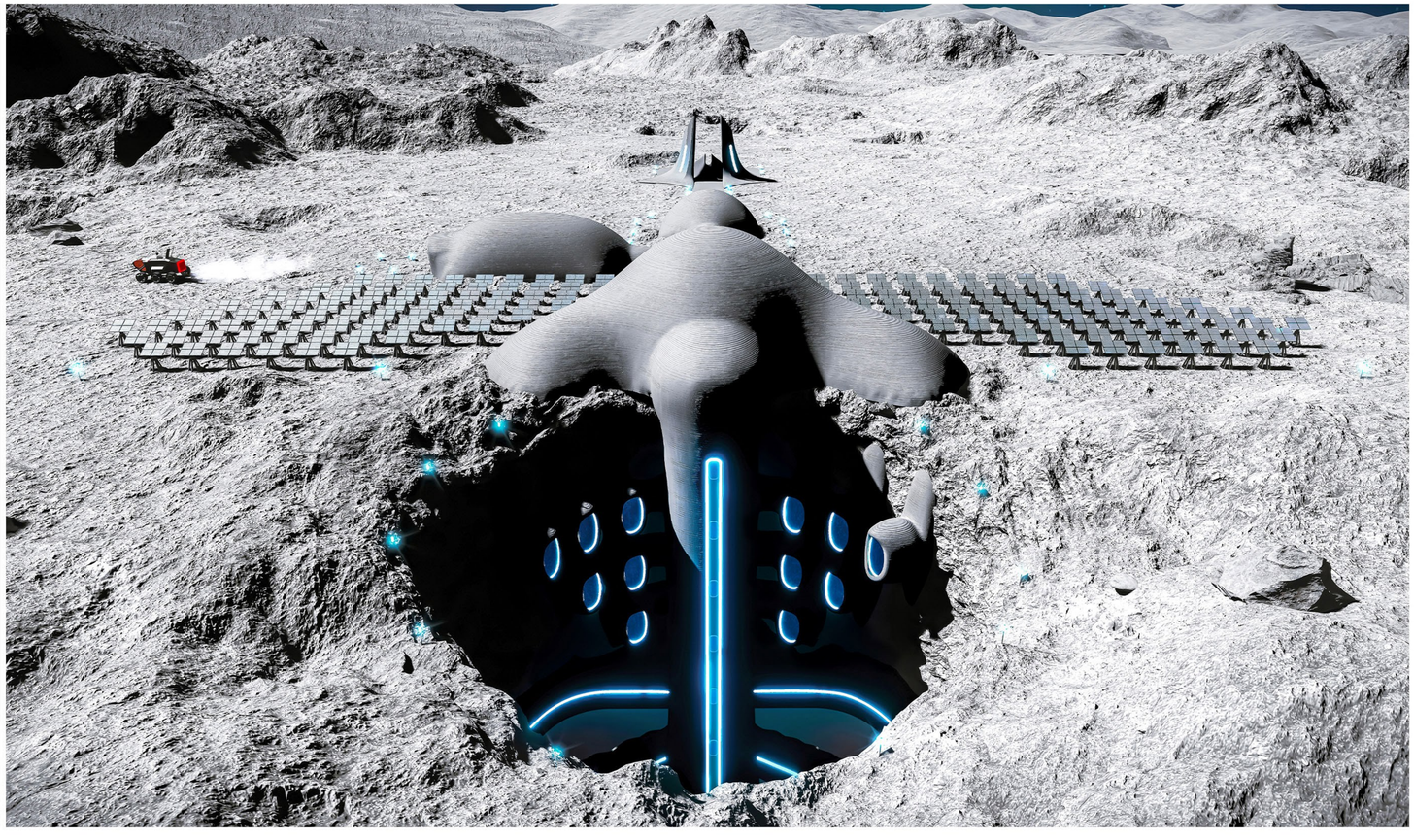




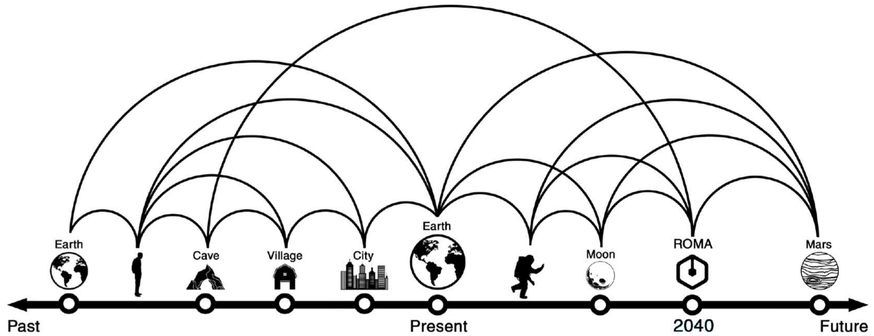


R O M A

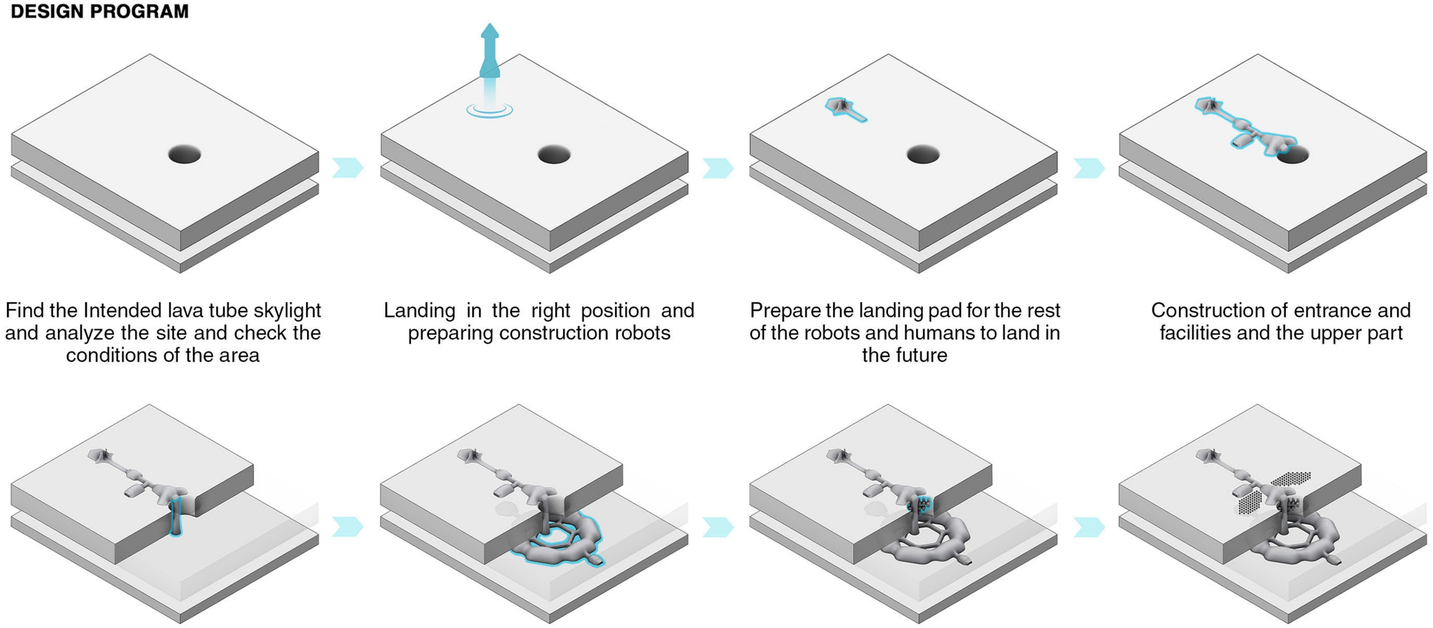
The purpose of this project is to establish a moon village with a recreational and research approach that has the capacity to accept 100 people in limited time periods that include researchers, tourists, engineers of various sciences, etc. in the age range of 18-60 years with favorable physical conditions.

Due to the possibility of meteor showers and solar radiation, and due to the lack of an atmosphere on the surface of the moon, this village is located at a depth of 88-80 meters below the lava tube in the Marius Hills area, which is connected to the surface of the moon by Marius Hills Skylight.

Due to the high cost of transporting materials from Earth to the Moon, the construction of this complex will be done by 3D printing methods using lunar soil and native materials by robots.



DESIGN PROGRAM



Find the Intended lava tube skylight and analyze the site and check the conditions of the area

Landing in the right position and preparing construction robots

Prepare the landing pad for the rest of the robots and humans to land in the future

Construction of entrance and facilities and the upper part

Add vertical access to reach the lava tube and build the elevator

Construction of accommodation for human habitation

Construction of units located in the skylight wall

Add the final details and finish building the Roma

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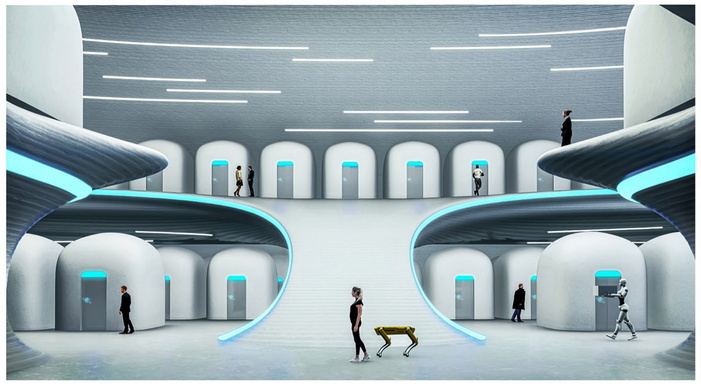
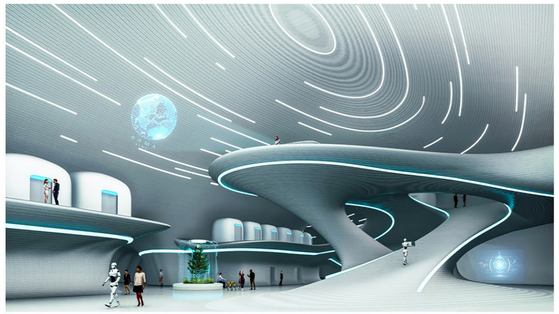
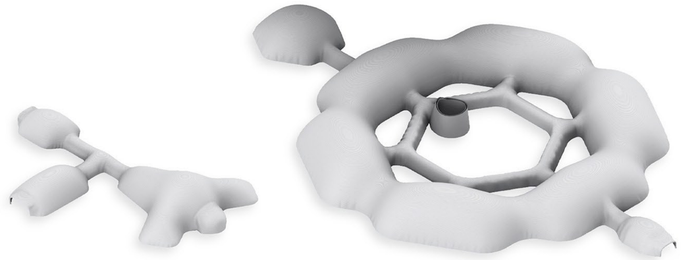
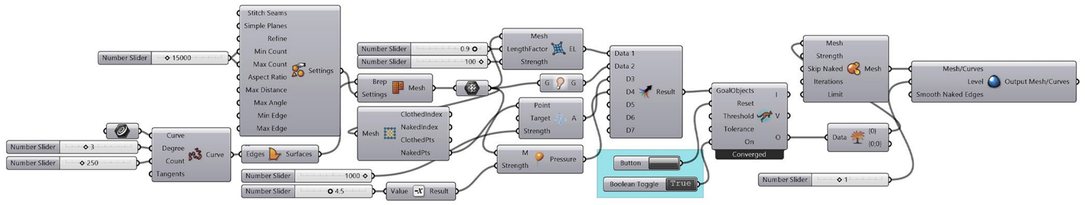




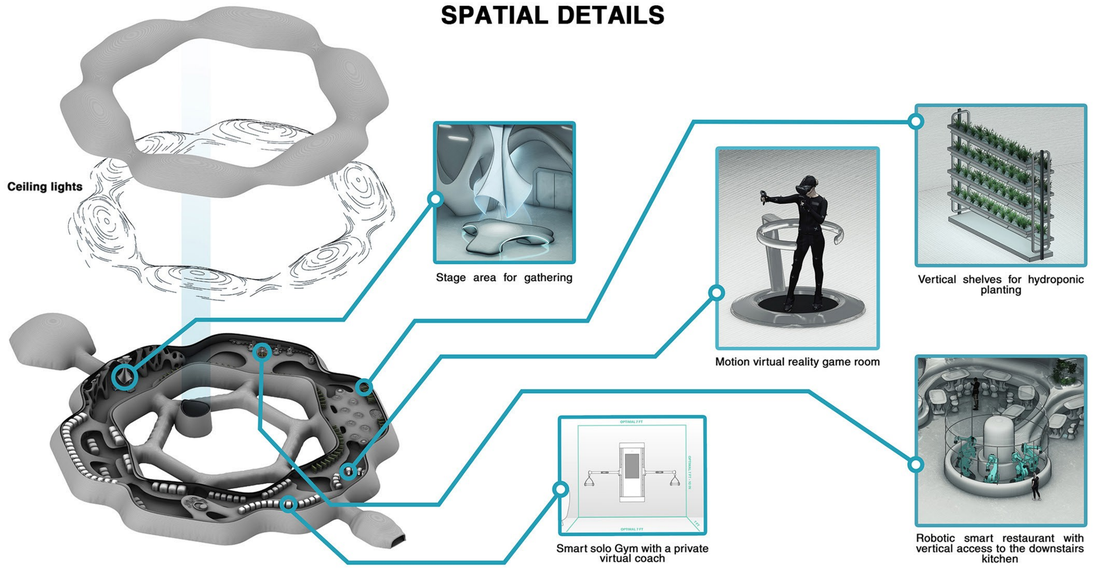
DESIGN ALGORITHM

Formation of integrated form mass by artificial intelligence and simulation of air pressure algorithms due to printability and resistance to harsh vacuum conditions.
And in the design of interior spaces, cell connection algorithms have been used

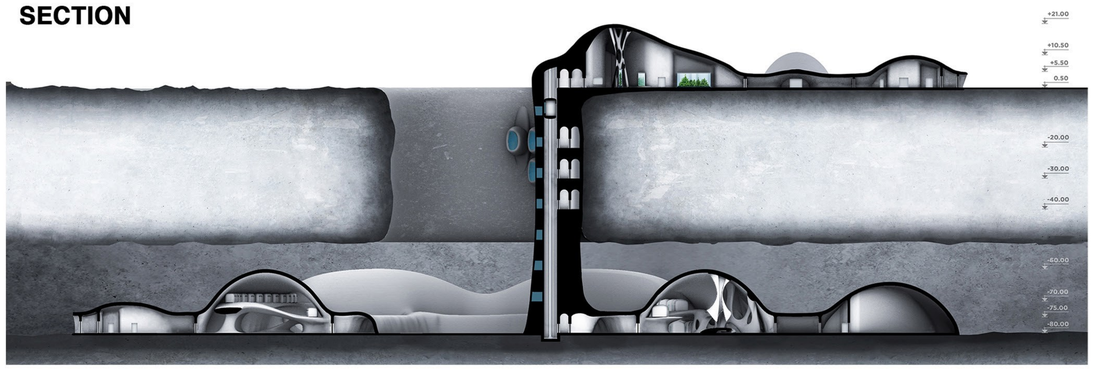




SPATIAL DETAILS



SECTION



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