

## Unprecedented Zipangu Underworld of the Moon/Mars Exploration (UZUME)

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Japanese lunar explorer SELENE (Kaguya) discovered gigantic vertical holes/pits of several 10 m to 100 m in diameters and depths in the Marius Hills, Mare Tranquillitatis, and Mare Ingenii of the Moon. These holes are possibly skylights of underground large caverns such as lava tubes. Similar hole/pit structures have been also found on the Mars. The caverns connecting to the Martian holes may be the best place for Martian lives to emerge, evolve and survive because of their safer conditions than the Martian surface.

Exploration into the lunar/Martian holes/pits and underlying subsurface caverns will probably provide valuable information about emergence and evolution of terrestrial and extra-terrestrial lives. We are now studying the missions and systems to investigate lunar and Martian holes and furthermore subsurface caverns associating to the holes/pts. We will realize projects to explore the holes and caverns. We have named the series of the projects as UZUME (Unprecedented Zipangu Underworld of the Moon/Mars Exploration).

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