

Utilization of In-Situ Resources for a Lunar Base Construction

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A systematic lunar settlement by starting a modular site development of existing caverns into cylindrical volumes shaped thru heating & forming devices. Some raw application of "lunar glass" is proposed and/or expected to be developed as constructive material.

After this first phase has been established, a first settlement has been put in place successfully, and having allowed future rocketry to develop, modular components can be brought to the lunar surface with added easiness. Some of this can be accomplished by future development of "lunar concrete" uses.

It has also been thought that alternatively or possibly further in the future a large pressurized balloon-type of modular structure can be brought up and deployed. There, a more spacious settlement could be put in use for larger crews to live and work in better conditions than in the initial phases. It is expected that "lunar glass" could have been developed also as a stronger tensile structural building material with similar or better properties than steel.