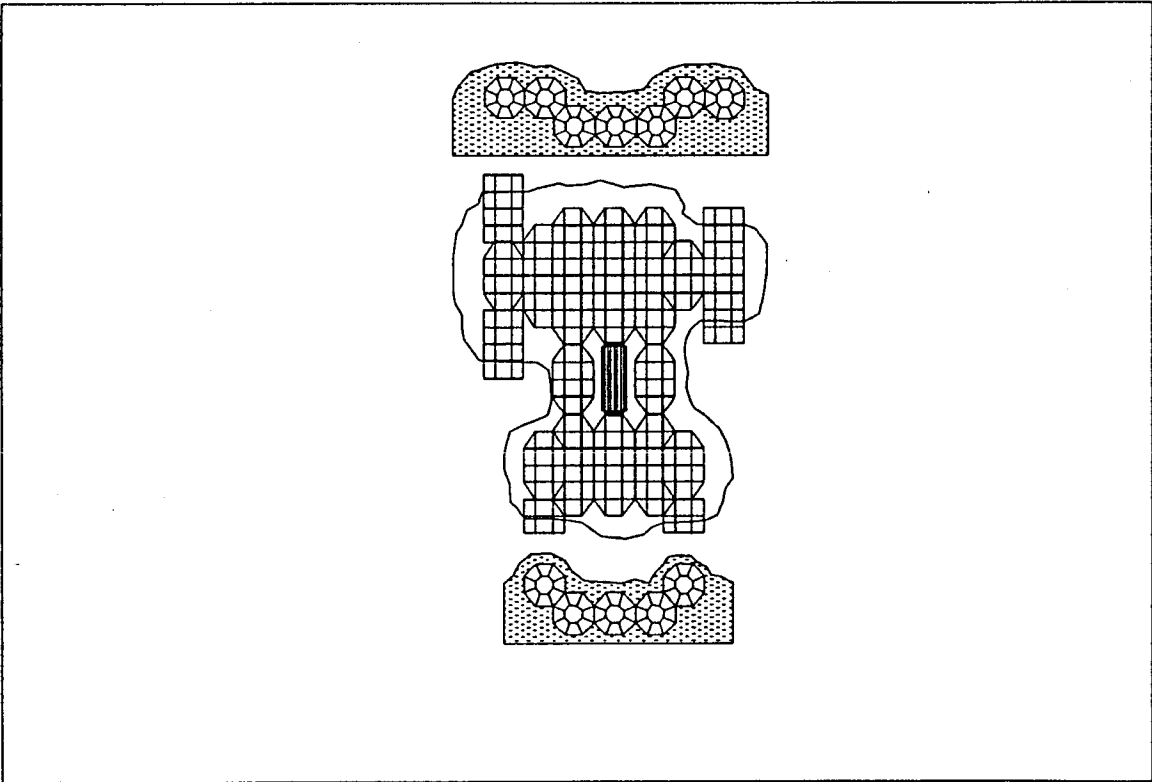


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# LUNAR STATION S-SPAN

*Timothy K. Luettgen*



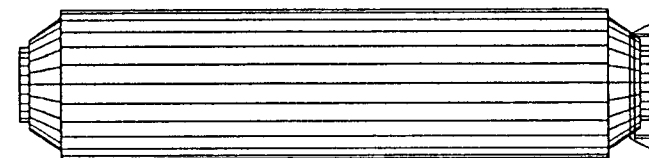
The primary objectives of this project were three fold. Most important was the concern to create spaces which were larger than the primary habitation module. Secondly, to allow for expansion in a number of different directions and finally to permit easy access to damaged components from the interior of the station. The module shape is circular to resist atmospheric pressures, allow easy access and permit a range of site conditions.

The modules would be buried under the necessary depth of compacted regolith to provide adequate radiation and meteorite protection. Lunar surface interface modules have attached canopies extruding from the entrances also covered with a protective layer of compacted regolith.

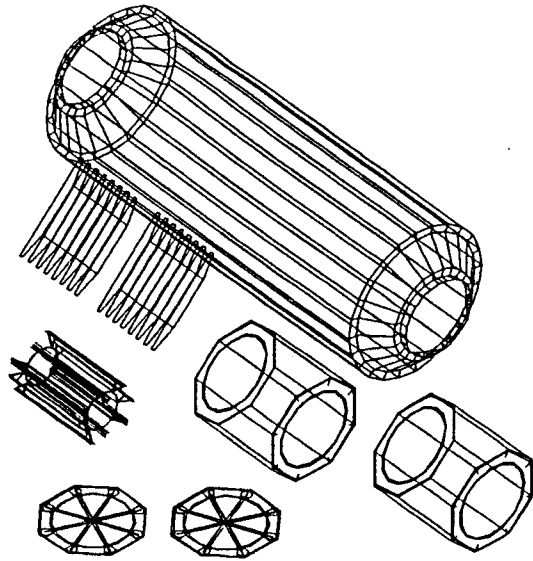
The lunar constructed modules are 25 feet in diameter and composed of a prefabricated kit of parts. All environmental and energy supply systems are located along a central corridor which links to the entry hatch of the earth constructed first-phase modules. This core would then also serve as the primary circulation system for the base.

The interior structural systems employ a tension construction method and attach to the shell framework. Floor spans, walls, storage and equipment are hung from these tension members. All systems are serviced through the central core and can be completely isolated if required.

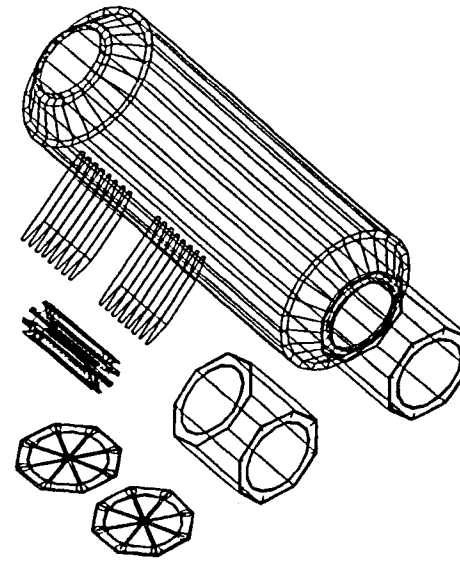
The construction sequence would first involve the completion of the core airlock and its attachment to the existing modules. From the central airlock, strut framework is extended outward to form a octagonal structure and insulated panels are attached to the framework. Additional habitation modules can be attached along any of the eight sides.



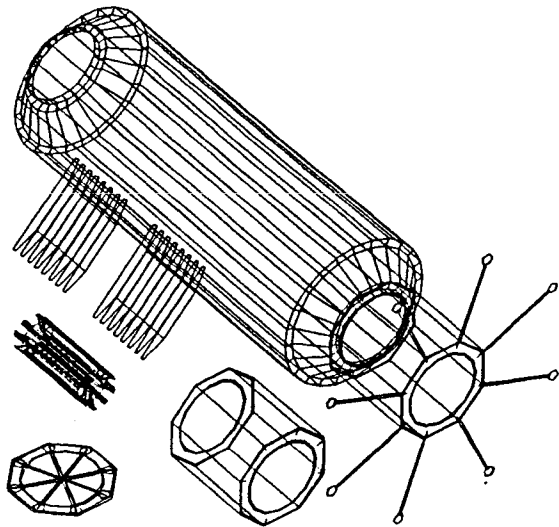
*Diagram of earth manufactured exploratory module*



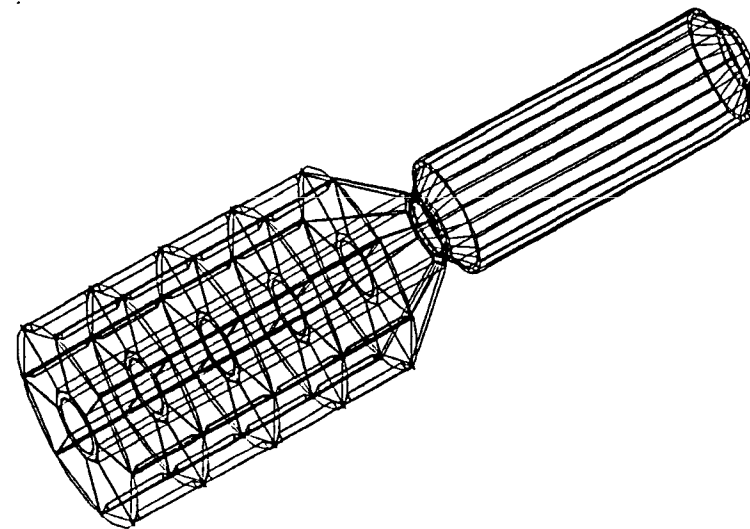
*Parts required for lunar assembled modules*



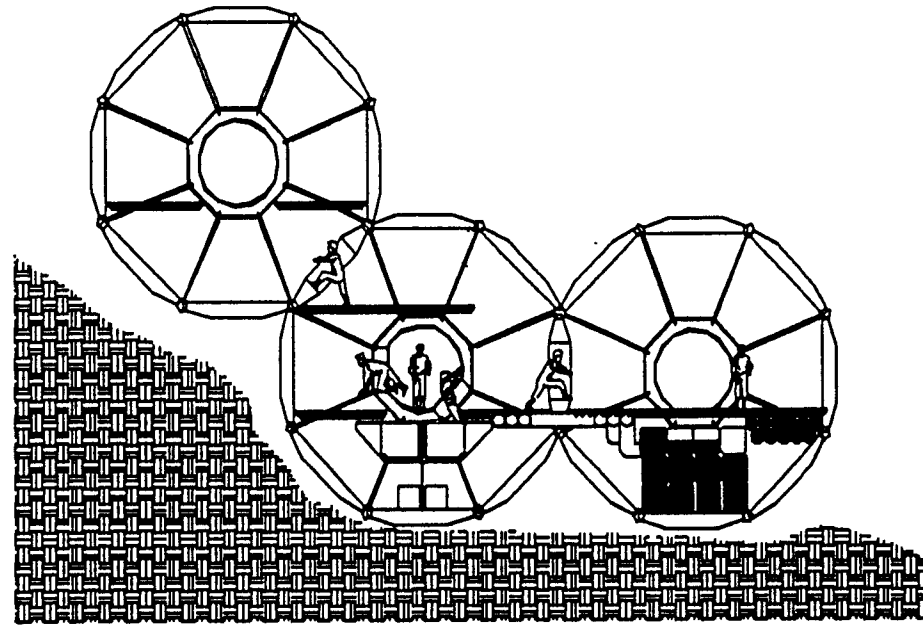
*Construction of passageways is first step in units' assembly*



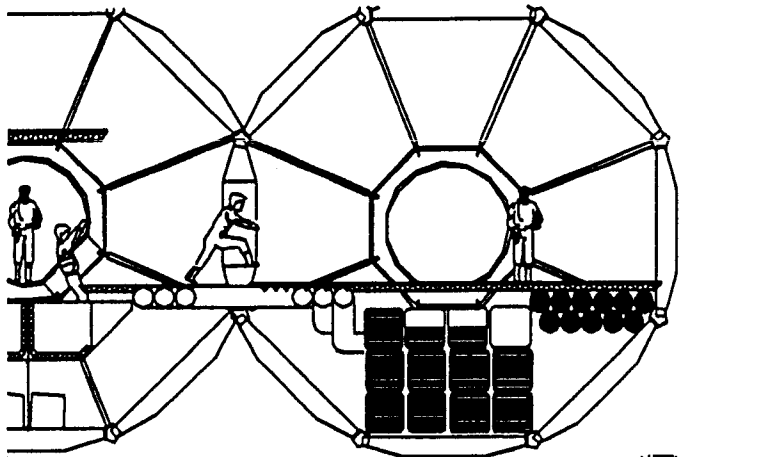
*Assembly of radiating storage and living quarters.*



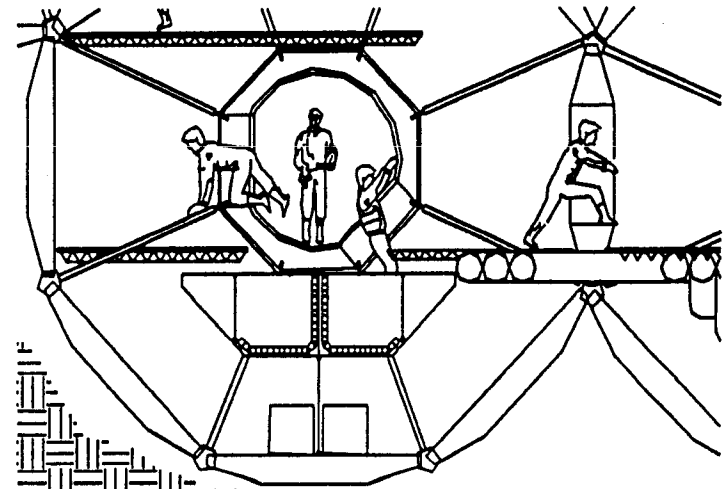
*Completed expansion module linked with exploratory module.*



*Master base section through expansion modules*

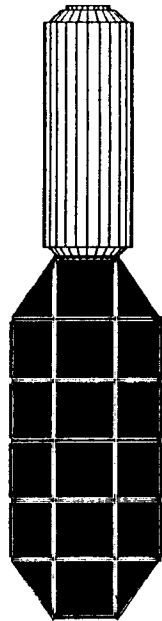


*Detail of storage module and link to other modules*

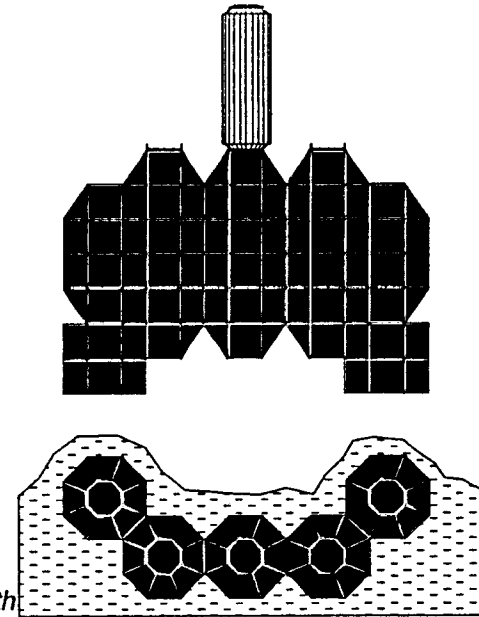


*Detail of living quarters*

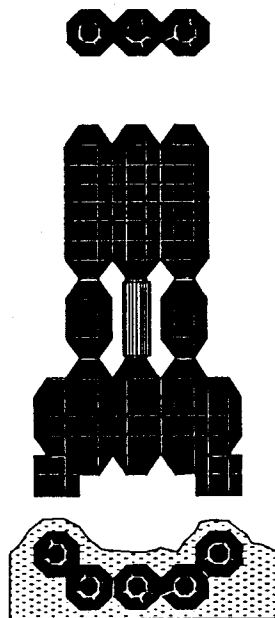
Phase 1 development



Phase 2 growth



Phase 3 growth



Phase 4 growth

