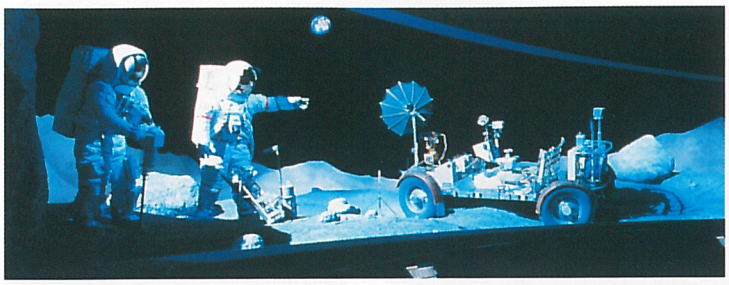


The Moonscape diorama.

MOONSCAPE

The visual expectation is that light on the moon will be single shadow, cold and harsh. Ideally, this would be accomplished using a large single source projector located a good distance from the subject. The Moonscape diorama, however required a series of fixtures to light the foreground as the curved proscenium and low ceiling height did not allow the use of a single fixture. Custom designed HQI Linnebach projectors provided the very precise control to eliminate multiple shadows caused by beam overlapping and spill outside the proscenium or onto the background.

SKYLAB

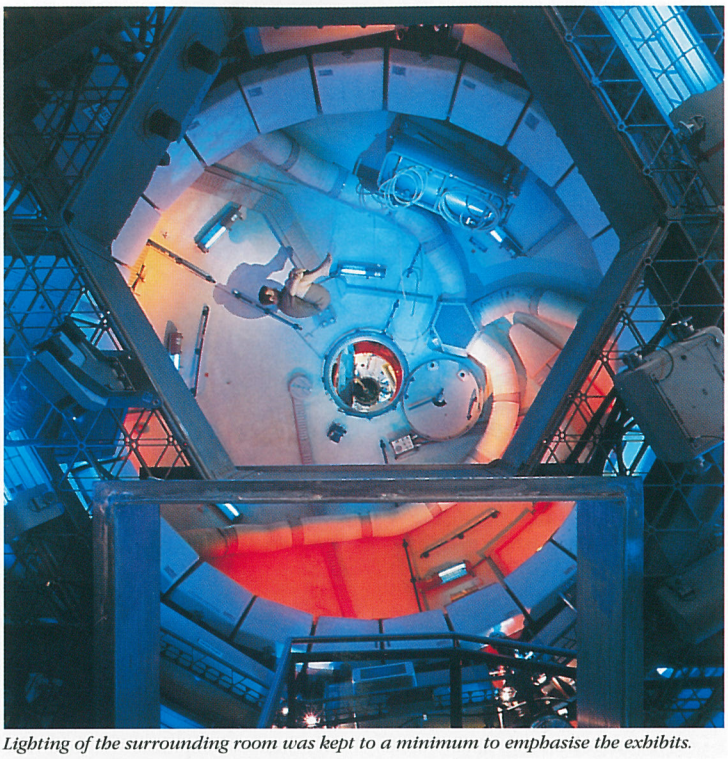
The original Skylab trainer, a full scale mock up of the actual spacecraft, had been stored in pieces in a NASA warehouse since the end of the program in 1974. Lighting both the interior and exterior of an object that large also posed problems of operatic proportions.

Eventually a decision was made to focus all light on the object and to keep light on the surrounding room surfaces to a minimum. The walls and ceiling were painted black to assist in making the room recede from view. The general exterior was lit with mini zoom fixtures and very saturate color.

DIMMING SYSTEMS

Each of the spaces indicated above was controlled on one of two Strand Premiere dimming systems controlling centralised CD80 dimmer racks. Each space was identified as a room, or several rooms, within each system. In the case of the static exhibits, lighting presets were switched on in the morning just before opening and off in the evening after closing with the internal time clock. Another preset, with all channels at full, was activated for 45 minutes each night to ensure that the tungsten halogen cycle of the dimmed quartz sources was activated. A worklight preset, activated by a keyswitch in maintenance closets adjacent to each room, allows clean-up and work crews to turn lights on and off without access to the complex dimming systems.

More complicated systems were used in the automated film theatres. Each set of channels required to fade independently was identified as a separate room. A series of contact closures activated by a show control device caused various actions to be taken by the Premiere controller.



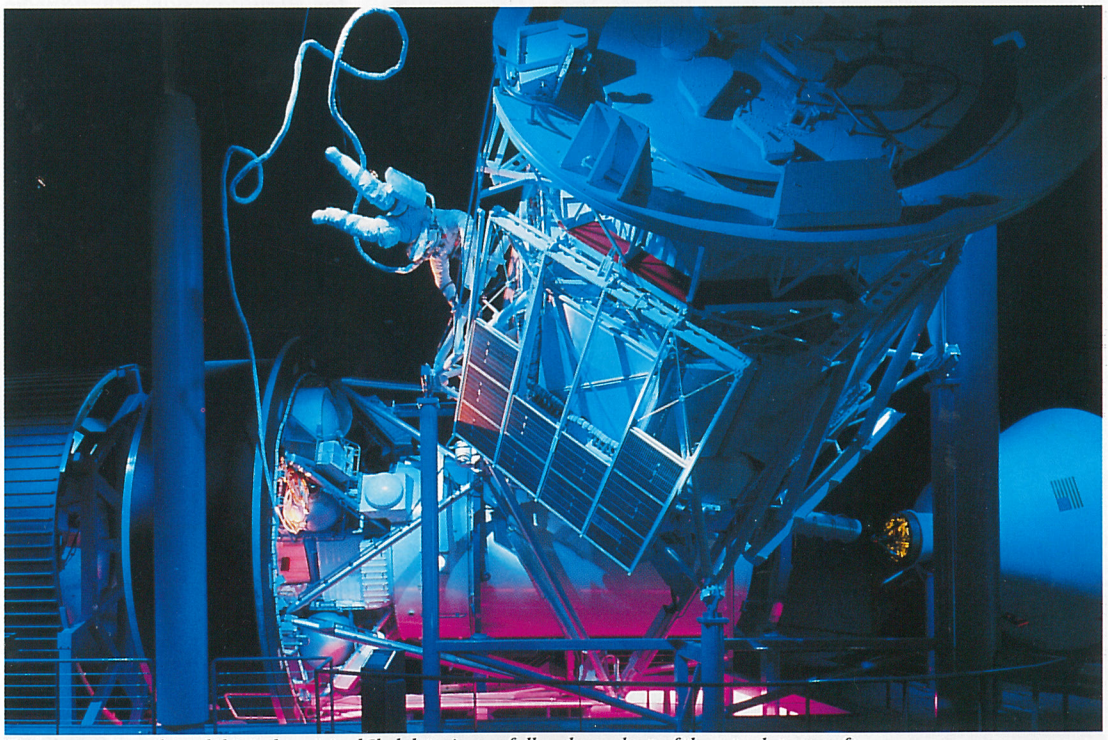
Lighting of the surrounding room was kept to a minimum to emphasise the exhibits.

In most cases this action was a "Go" command which cycled cues in a continuous loop. A "Reset" command caused the lighting system to go back to the beginning of the sequence. An "emergency" command accessed a preset to bring all channels in certain rooms to full. Other commands such as "flash" and "microphone on" were used to identify exits with lighting and to bring up lights automatically when microphone keys were depressed.

In the 'Living in Space' exhibit off the main plaza, a mock up of the interior of the proposed Freedom space station lights up one section at a time. The lighting for each section is controlled by a master of ceremonies who pushes a button on the floor at appropriate times during the show. The Premiere system prevents the sequence from backing up if a prior button in the sequence is depressed by accident.

Remote jacks were located in each space in the building to allow programming of presets through a portable master programming station. As late breaking changes were a major feature of the weeks leading to opening, the system programming flexibility and independence from other control devices proved invaluable. The ability to adjust software rather than hardware to solve functional problems in a rapidly changing setting proved its worth.

Through a very theatrical approach to the lighting of the exhibits, the monumental achievements of man in space were emphasised. The incredible technical accomplishments are revealed through story and appropriate illumination of the artifacts. The rich and dramatic content of the lighting aroused the emotional responses of the visitors to the exhibits. From all reports, the original mission statement of the project "..to inspire... and instil a sense of pride.." has been met.



This most spectacular exhibit is the original Skylab trainer, a full scale mock-up of the actual spacecraft.

Credits:

Architectural Lighting Design
Larry French & S. Leonard Auerbach.

Show & Exhibit Lighting Design
Larry French & Patty Glasow.

All photographs by Paul Hester.