Building for The Space Age
By ADA LOUISE HUXTABLE
New York Times (1923-Current file); Aug 3, 1969; ProQuest Historical Newspapers: The New York Times
pg. D22

Architecture

Building for The Space Age

By ADA LOUISE HUXTABLE

IF man gets to the moon, can architecture be far behind? No, says the Journal of the American Institute of Architects in its July issue. Professor C. Herbert Bowes of the School of Architecture at the University of Colorado, who has been specializing in extraterrestrial design for the past eight years, has written an article on Shelter on the Moon.

"If we architects don't become involved in the space program, engineers and scientists may find that they can get along without us," Professor Bowes says. He is expressing the architect's basic, unspoken fear that everyone can get along without him, in a world that is an increasingly inglorious environmental pudding with a few good-building raisins stuck in for optional flavor and color. Following our accustomed formula, we seem destined to make a muddle on the moon.

It is clear that the first moon shelter will not be the Lunar Hilton. Professor Bowes's study concentrates on essentials. It is concerned with "an expanding modular base adaptable both to two-man outposts and permanent installations, housing up to 18 men, consisting of prefabricated shelter modules that fit onto their Saturn rockets."

Each shelter is to be 21 feet in diameter inside, providing 346.2 square feet of earth-type space. "There has been a conscious effort," Professor Bowes says, "to create an architectural environment that will satisfy not only human needs for survival but one that will satisfy psychological needs as well." The shelters look a little like igloos, or helmets.

According to the article, each two-man unit has an entrance-exit chamber, a communications console, a laboratory, a microfilm library, foam-plastic games, a laundry, a first-aid station, individual space for sleeping and retreat, provisions for exercise and recreation, a food storage, preparation and eating area, and body hygiene space.

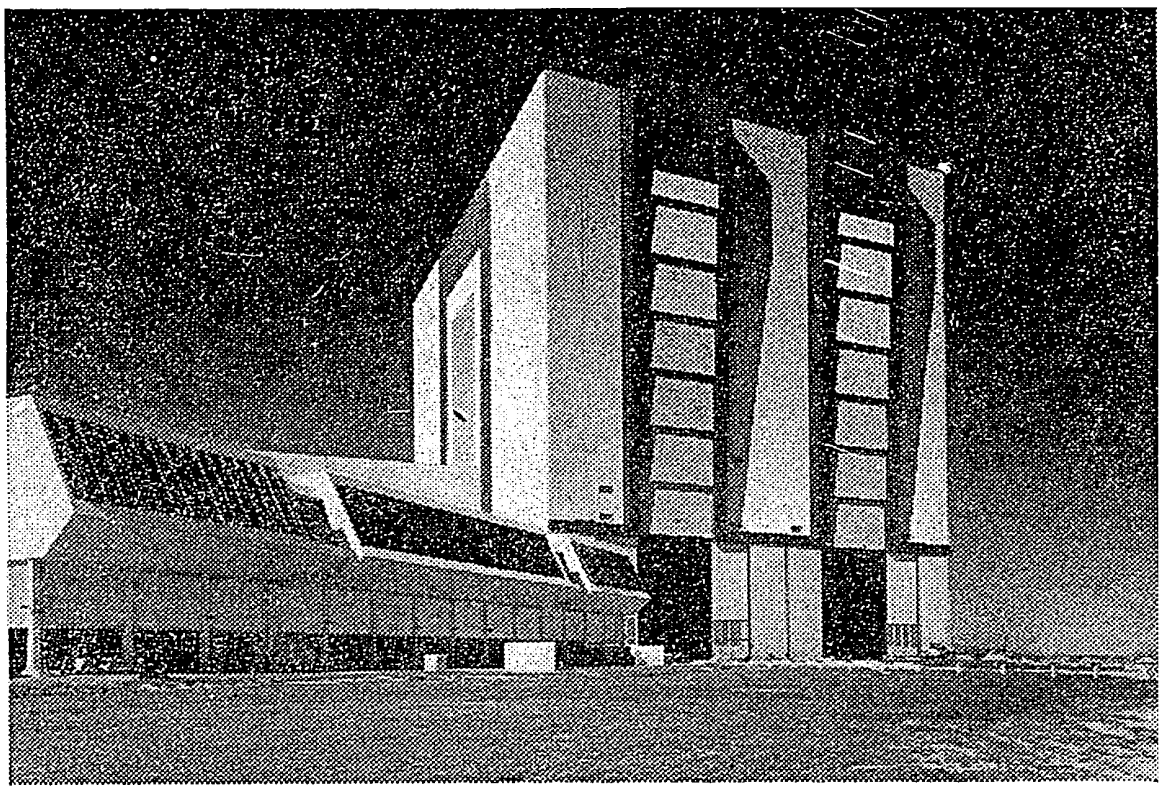
There would be mechanical, chemical and electrical devices to provide and regenerate a life-sustaining atmosphere — pressure, oxygen and nitrogen, humidity, temperature and odor control. Power would be from a nuclear reactor.

A 30-inch diameter skylight with motor-operated mirrors would provide views of the sky and lunar landscape. Special glazing with a lead shield would protect against ionizing radiation from the sun.

The shelters would be insulated between inner and outer skins, and their exterior surfaces finished for a controlled amount of radiant heat reflectivity while in transit and while waiting to be covered with insulating substances on the moon's surface. That substance could be moon sand, so the effect would be of half-buried bubbles. Obviously, it will be a long time before a Holiday Inn sign blossoms, which is some kind of reprieve for the moon.

Meanwhile, back on earth, architects have been busy. They built the building in which the Apollos are built. The Vertical Assembly Building and the Launch Control Center at Cape Kennedy were designed by the office of Max O. Urbahn in joint venture with Roberts and Schaefer Co, Inc.; Seelye, Stevenson, Value and Knecht Inc.; and Moran, Proctor, Mueser and Rutledge. The group was called URSAM, and a 300-man design team worked from 1962 to completion of construction in 1965, which included launching pads and "crawler" transportation system in the 10-acre complex. The Vertical Assembly Building cost a neat $100 million. The Launch Control Center accounted for another $9 million.

They are pretty impressive structures. If you weren't making Apollo capsules and Saturn rockets in the Vertical Assembly Building, you could easily erect a skyscraper.



Alexandre Georges

Vertical Assembly Building and Launch Control Center at Cape Kennedy
Susceptible to very little in the way of esthetic window dressing

Publicists have favored information such as that the New York Hilton could pass through its doors and its structural steel — 60,000 tons of it — would fill a freight train 10 miles long.

The cool facts are that the building is 526 feet high to accommodate the 362-foot Apollo vehicle on its 46-foot-high launch platform. Vehicles pass through 456-foot-high doors made in sections that "stack" at the top of the structure. The steel-framed space allows 150-foot clear spans for 250-ton capacity bridge cranes. The construction is designed for hurricane force winds.

The program for this extraordinary building was the provision of a work area in which space vehicles could be assembled from parts and subassembles from manufacturers and other NASA facilities. Four vehicles can be put together at one time. In addition to assembly erection, the vehicle must be checked out in a mobile, rather than a fixed system, since each assembly moves from the building to the launching pad, where the same tested systems are used for launching.

The Vertical Assembly Building is, therefore, a factory, and it grows from one of the most notable technological achievements of the last two centuries — the development of large-scale, large-span industrial architecture. As such, it is susceptible to little in the way of esthetic window dressing.

Still, it goes beyond pure engineering. The architect must satisfy the engineer's and scientist's requirements and use the engineer's advances in the most direct and rational way. But he will put the pieces together in a particular fashion within these stringent requirements, and if he is any good he can, and does, produce some of the most expressive and important buildings of our time. Naturally, not all are masterpieces. Some are humdrum affairs. But so is a lot of "architecture."

The point is that these buildings reveal clearly what they are meant to do and the remarkable technical means by which they do it, as well as some of the most brilliant and progressive moments of our civilization—and that is about the best kind of art the 20th century can get. It is no accident that Le Corbusier apotheosized the grain elevators of America.

It is in the face of this kind of genuine drama, of this cultural and esthetic reality, that elephantine posturings such as Washington's Rayburn Building seem particularly obscene. No, we do not mean that legislative office buildings should look like factories. But we do mean that such buildings should be on nodding terms with today's forms, functions, technology and art. Is it too much to suggest that today's government be in touch with today?

Buildings that are pretentious, ordinary and without contact with the assets and achievements of their age say a lot about the men who put them up. They have simply transferred their dated and faulty values to marble and concrete. That is the essence of architectural symbolism. The standards advertised by our legislators on Capitol Hill are uncountable light years from the conquest of the moon.

Unfortunately, clear purpose and structural expressiveness founder in confusion once the designer and builder leave the strict, essential programing of a tightly functional structure. Take the Lunar Receiving Lab, where Astronauts Armstrong, Aldrin and Collins are "decontaminating." It is a marvel of compact efficiency. But when the transition takes place from technology to taste, the descent is precipitous. Each man has quarters, according to Time magazine, furnished in Sears Roebuck Early American style.

Welcome back, gentlemen, from the world of the future to the world of the absurd. Welcome to the Early American syndrome. It is a giant step forward to today's technological masterpieces, and a small step backward to total design banality.