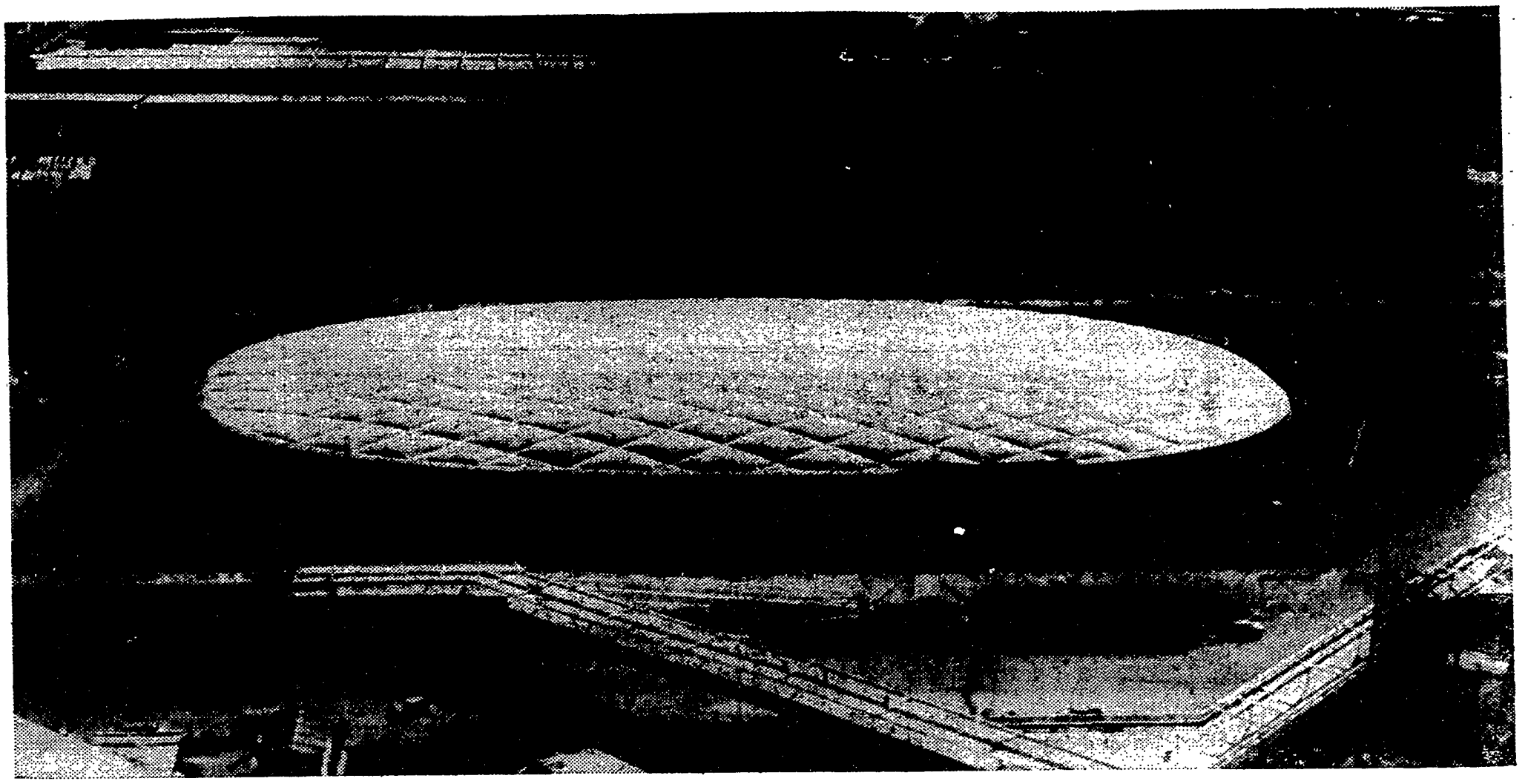
# U.S. Pavilion at Osaka Fair Will Have Translucent Inflated Roof

By ADA LOUISE HUXTABLE

*New York Times (1923-Current file);* Nov 21, 1969; ProQuest Historical Newspapers: The New York Times
pg. 6

*U.S. Pavilion at Osaka Fair Will Have Translucent Inflated Roof*

By ADA LOUISE HUXTABLE



U.S. pavilion for Expo 70 at Osaka, Japan. Air-supported roof covers structure, about the size of two football fields and partly sunk in ground. F. Yamamoto

The United States unveiled the design of the American pavilion at Expo 70 in Osaka at a White House news conference yesterday attended by President Nixon and Premier Eisaku Sato.

The pavilion is a shallow-domed, elliptical structure sunk partly into the ground and topped with an air-supported—that is, inflated—cable roof. It will be the lowest pavilion at the fair; the Soviet building will be the highest.

The unusual roof—the largest clear-span air-supported roof ever built — covers an area about the size of two football fields. Made of a translucent, vinyl-coated fiber-glass fabric, it will filter natural light by day and glow with artificial light at night.

Although this is the first official announcement about United States participation in Japan's World Exposition, which will last from March 15 to Sept. 30, the air structure shown in the model in Washington is already complete on its six-acre exposition site. The cost of building and exhibits will be $10-million.

The interior space, which will hold two levels of exhibitions, has been hollowed out of the earth, with the excavation material banked as an earth berm, or wall, to enclose it. In plan the building is a super-ellipse—a somewhat squared elliptical form—measuring 274 feet by 465.

### Architectural Testing Site

The unconventional concept is based on the kind of experimental architecture and engineering for which world's fairs have long been the proving ground and showplace. They stress dramatic temporary structures of striking teachnology.

That approach has been encouraged in recent years by the United States Information Agency, which is in charge of American participation, through the agency's deputy commissioner general for planning and design, Jack Masey.

Mr. Masey was responsible for the use of the Buckminster Fuller dome at Montreal that was generally considered the star of the show. A similar standard has been set for Osaka in the selection of the air-structure design.

The roof, attached to and partly supported by a network of steel cables, is extremely light, weighing a pound per square foot, but it is designed to withstand earthquakes and typhoon winds.

A blower system will keep it inflated. There will be reserve blowers, and the pavilion has its own generators in addition to the fair's power system to insure against failure.

The design is the second prepared by the United States exhibition team of Davis, Brody, Chermayeff, Geismar, de Harak Associates of New York.

The team of architects and designers was put together specially for the fair to coordinate the building and exhibits. It was one of 11 considered by an advisory panel of private-sector and Government experts in communications and the arts in an attempt to get the best talent.

The first design, which would have cost $16-million, was scrapped when Congress appropriated $10-million for the fair. Re-design was undertaken on an extremely short schedule.

Soviet participation has been reported to be budgeted at $20-million. Unlike Expo 67 at Montreal, the Soviet and United States buildings will not confront each other but will be at opposite ends of the fairground.

The red and white Soviet Pavilion, a soaring spiral, rises almost 130 feet. The Soviet design has been likened to a ski slope and the American one to a flying disk.

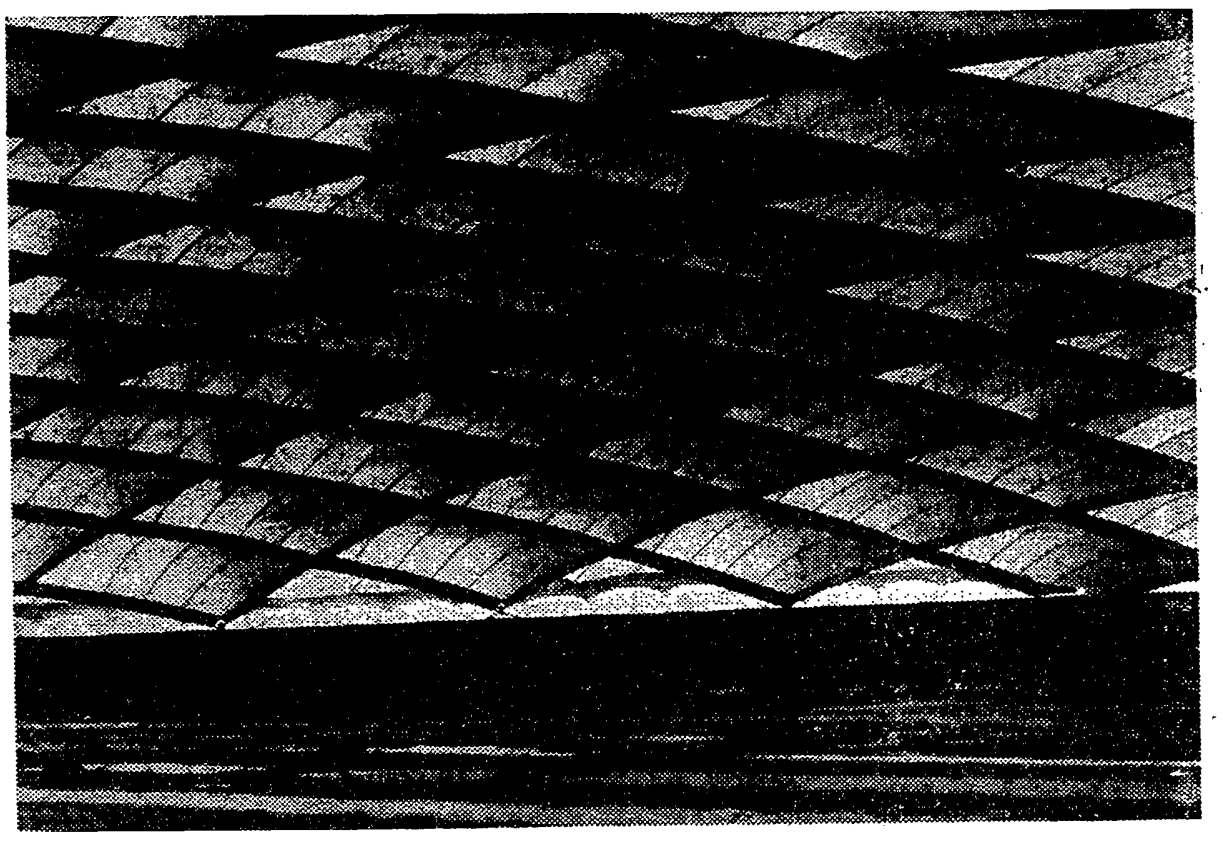
Within the United States pavilion's partly sunken, 60-foot-high space there will be a two-level exhibition platform with a floor area of 100,000 square feet. This structure will contain seven exhibits on the theme of "Images of America."

There will be a photographic display of the country and its people, an exhibit of American realistic painting, a sports exhibit, a space exploration exhibit and displays on architecture, folk arts and new arts, based on experiments in art and technology.

Expo 70 is the fourth world's fair of the highest category accredited by the International Bureau of Exhibitions in Paris. The others were Paris 1937, Bussels 1958, and Montreal 1967.

The Osaka event will be the largest of the world's fairs, with an 815-acre site and more than 70 nations participating. A first category fair requires that each country build its own national pavilion. Collectively, the buildings have usually presented a dramatic international cultural and architectural display.

The master plan and the theme buildings ("Progress and Harmony for Mankind") are the work of Kenzo Tange, a Japanese architect who has built internationally and is the recipient of the gold medal of the American Institute of Architects. His structures include the Tokyo Olympics buildings and he is the competition-winning planner for the rebuilding of city of Skoplje, Yugoslvaia, destroyed by earthquake in 1963.



The translucent fiber-glass roof is extremely light. A blower system keeps it inflated.