

WASHINGTON BREAKTHROUGH—Rendering of National Air and Space Museum to be built on the Mall in the Capital.

Architecture

# Two Design Takeoffs for the Air Age

By ADA LOUISE HUXTABLE

ANYONE 61 years old was born with the Air Age and may be somewhat shocked to know that the Air Age is about to take its place in history in a National Museum. Anyone over 61 with a nostalgia for the days of Kitty Hawk and the Wright brothers and still able to locomote will soon be able to commute between two air museums — the Smithsonian Institution's National Air and Space Museum in Washington, D. C. and the new Air Force Museum in Dayton, Ohio, to see what the Air Age has wrought, architecturally. It will be worth the trip.

Not one, but two monumental structures serving similar purposes have been designed simultaneously but independently, and the comparative results could not be more dissimilar, or more revealing and instructive. The National Air and Space Museum is the work of Gyo Obata of Hellmuth, Obata and Kassabaum, with Mills, Petti-cord and Mills associated. The Air Force Museum was created by Kevin Roche of Eero Saarinen Associates.

Both projects were designed in the last year and are about to be built. Both are the work of talented young men who would have been regarded as part of the architectural avant-garde a few years ago, but have quietly taken their place as leading members of established but progressive firms that are suppliers of some of the country's most important structures to its most respected institutions. The two designs are unequivocally twentieth-century solutions, in terms of modern

technology and esthetics, to a twentieth-century problem. But the likeness stops right there. The National Museum was designed for the city of Washington, a beautiful classic trap that has caught more than one good architect who tried to cope with its traditional image. The museum's site is the greatest trap of all — the Mall with its formal row of outsize, stillborn monuments — and it will face the tomb-like dignity of the National Gallery, which has the mausoleum splendor of the Taj Mahal, except that the Taj is more colorful and livelier. This is an assignment that everyone coveted, but nobody really envied.

The new museum will exactly equal the National Gallery in size and bulk. It is to be 97 feet tall, 784 feet long and 250 feet wide. Its materials — hold on, everyone — will not be marble, but concrete, steel and glass.

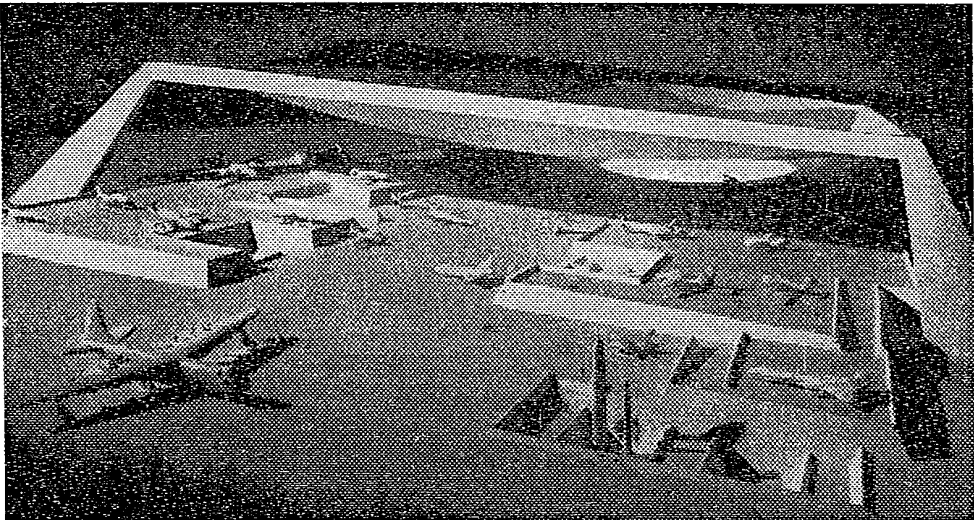
The key to the building's appearance is in its structure, which is based, in turn, on its program and plan. Twelve large vertical piers ranged along its periphery are joined by steel trusses at various levels, providing skylit exhibition courts that range from nine feet to 110 feet in height (partly sunk below ground) for objects from models to missiles to full-size planes. There will be intricate interior visual relationships from one area to another that promise to be as rewarding as spectacular architectural space as they will be meaningful as exhibition technique.

### Design from the Inside

This well-defined and organized space "reads" inside and out. The exterior forms, to be clad in concrete aggregate of a color harmonious to Mall marble, are clearly expressive of structure and purpose. Unlike the Smithsonian's Museum of History

and Technology completed recently at the opposite end of the Mall, which has taken a critical shellacking, this is no box in optional fancy dress. The rendering of the Air Museum, shown here, does not succeed in indicating the immense scale of the exterior, and the building could be far more impressive in execution than the drawing suggests. But it is a major design breakthrough for official Washington. There will be an even greater breakthrough in the flatlands of Ohio. In what may be one of the country's most stunning works, by a man who is possibly our most gifted architect (yes, we are sticking our neck out), Kevin Roche of the Saarinen office promises us a building that is not only a museum, but a monument to the Air Age. He proposes a structure that is as forward-looking as flight and almost as beautiful. Structurally it will em-

ploy advanced engineering techniques that are as much of a modern miracle as airborne craft. An eight-acre wedge-shaped shelter made of an interlaced network of cables covered with steel deck will be suspended from four points, restrained by long span truss struts supported by cable, making the whole roof stable in itself. This tent-like steel cover will be completely without interior supports, with a clear span of over 700 feet at its widest end. The roof is held at the four suspension points by pylons which spread out to the ground. Great mounds of banked earth flank the sides, to "contain" the structure on the flat land. The approach would be through a walled access ramp leading to a rotunda housing the earliest canvas planes. Exhibits, planned with specialist Herb Rosenthal, fan out on rising levels that keep the planes above eye height as the story progresses, always facing the open sky at the structure's large end. The building would not be seen at all until the visitor emerged onto a runway outside. It could never happen on the Mall in Washington. But both museums are fine buildings. Washington's is more comprehensive, reflected in a \$40 million cost as against \$11 million for the Air Force project. In each case the designer states that the remarkably different solution grew directly, logically and naturally out of remarkably similar needs. Mr. Obata, meet Mr. Roche; Mr. Roche, meet Mr. Obata. Form follows function in many ways, for which heaven, and architecture be praised.



DRAMA IN DAYTON—Model of proposed Air Force Museum's wing-shaped wedge. Extra Stoller