Construction of the New York City Exposition and Convention Center is expected to begin in the summer of 1980 and be completed by spring of 1984. It is the most important public building undertaken in New York City in decades, and this exhibition offers an opportunity to examine its design in some detail.

In other cities such large and complicated facilities have been built on relatively open sites in outlying areas. But in New York, as the architect I.M. Pei observes, "the major task is to design the largest American exhibition space under one roof and at the same time to integrate the building with the streets and activities of the city." Besides achieving these goals, Pei and James Ingo Freed, partner in charge of design, have produced a work of architecture that is likely to become a New York landmark.

The design of any building that occupies 18 acres of a 22 acre site, and accommodates a population of up to 80,000 people, is first of all a problem in managing movement. People, trucks and cars must be kept separate and safe, so the design process begins with the deployment of entrances, truck docks and fire stairs. They are grouped in two zones paralleling 11th and 12th Avenues, and supplemented by secondary access routes on 33rd and 39th Streets.

Between these zones is an open area 450 feet by 1,170 feet. This the architect has divided into square bays. At 90 foot intervals a "column" made up of four 14 inch diameter steel tubes rises 20 feet above the main exhibit floor. Springing from these columns are steel space-frames made of 4 inch diameter tubes, producing a transparent enclosure that balloons upward to different heights. The tallest sections are clustered around the main entrance, and also enclose an elevated galleria that cuts across the exhibition space on the east-west axis. With a lightly reflective glass skin on its walls and roofs, these sections of the pewter-colored steel webs will glow in silvery light.

Contrasting with the airy overhead structure are the floors themselves. They are horizontal layers pierced by large round openings and narrow slots for escalators, and dominated by the raised galleria gliding bridge-like between the columns. A third motif is provided by "core buildings" for shops and offices. Their irregular silhouettes, punctuated by towers, will make them seem like facades lining a street.

All three components of the composition -- the space-frames sheathed in glass, the pierced floors and bridges, and the core buildings -- respond to each other by inflections in geometry and scale. As James Freed describes it, his architectural intentions were comparable to those of a Bach fugue, in which separate voices interweave without ever losing their identities.

(over)
Not least among the gratifying aspects of this building is its confident, resourceful use of structure and function as the determinants of design. But these alone do not account for something extra -- a quality of public space that is at once lively, dramatic, and perhaps even mysterious. It should be a beautiful building.

Arthur Drexler