

IBM traveling pavilion

1983-1986

At the beginning of the 1980s, IBM decided to organize a traveling exhibition, entitled *Exhibit*, which would bring the frontiers of computer research to the general public. The exhibition of new personal computers was to be presented as part of a broader context of concerts, theatrical readings and artistic performances. Moreover, in the space of two years, from 1984 to 1986, the exhibition was scheduled to travel around Europe, taking in twenty cities: Rome, Milan, Vienna, Madrid, Barcelona, Lyon, Geneva, Zurich, Paris, Brussels, Düsseldorf, Amsterdam, Berlin, Copenhagen, Stockholm, Helsinki, Oslo, London, Manchester and Dublin.

It was an unusual exhibition that required an equally original exhibition pavilion: flexible in plan, easily assembled and dismantled, given how often it would be packed and shipped in containers, and capable of communicating an attractive technological aesthetic.

The pavilion designed by Renzo Piano was a translucent barrel vault, 48 meters long, 12 wide and 6 meters high at its apex. It was assembled by juxtaposing 34 self-supporting arches, each consisting of 12 pyramidal elements in thermoformed polycarbonate, connected, on both the extrados and intrados, with slightly convex lamellar wood rods and aluminum joints. Each arch was formed by uniting two semi-arches connected at the top, eliminating the connecting rod precisely at the point where the traditional laws of statics would make it necessary to position it.

On the extrados the rods bound the vertices of the pyramids; on the intrados they traced their base profiles, while the structure was braced by two transverse rods for each piece, with a smaller section. The design of the nodes was particularly refined. Each rod ended in two elegant comb-shaped joints that fitted together between the thin layers of laminated wood.

The vault rested on a self-supporting deck, raised above the level of the ground, so that the pavilion could relate to different urban contexts. As in Piano's earlier experiment in the pavilion of Italian industry at the 1970 Osaka Universal Expo, the base area houses all the facilities, in particular the air treatment plant, crucial in a pavilion that behaves like a hermetic greenhouse. The air is introduced by vents at the base of the structure, carved in the prefabricated wooden panels of the floor, and raised by a cylindrical aluminum element at the apex, with the secondary ducts embedded in slots between two adjacent arches. Definitively dismantled at the end of the exhibition in 1986, the pavilion has not been rebuilt since.

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