

Section

AD - Ephemeral Portable Arch.

# BRANSON COATES ARCHITECTURE

## **POWERHOUSE::UK**

London

Temporary exhibition structures are fertile ground for the exploration of unusual forms in architecture. In this case, the exhibition theme, 'cutting edge design', enhanced the designer's remit to explore the project's potential to the full, but also added the responsibility of creating an appropriate 'cutting edge' building image.

The architectural practice Branson Coates has extensive experience in designing for dramatic effect and image, exemplified not only by exhibition projects such as Living Bridges at the Royal Academy, and Erotic Design at the Design Museum, in London, but also by their Japanese work: for example, the Art Silo and the Wall building.

The commission from the Department of Trade and Industry was to create a showcase of the best of innovative British Design – for presentation primarily to the European and Asian Heads of Government and business attending the ASEM 2 meeting in early April 1998, as well as to the public. The building was to be open for only three weeks with a one-week set-up period and was to include many different aspects of innovative design expertise: computer graphics, media special effects, automotive design, genetic engineering and furniture design.

The site at Horse Guard's Parade is a high-profile destination, on tourism agendas for the daily ritual of Changing of the Guard and special events each June when it forms the setting for Beating the Retreat and Trooping the Colour. The ceremonial nature of the site makes it especially suitable for temporary structures, which must attract visitors not only by their advance publicity but by being adjacent to a recognisable 'address'. The range of traditional formal government buildings that formed the backdrop to Powerhouse::UK was an interesting foil to the exhibition's transient and dynamic nature.

The structure was composed of four 16-metre-diameter drums, positioned symmetrically around a central crossing in response to the symmetry of the site. The symmetry was enhanced further by four ramps leading towards a central circulation space, providing visitors with the choice of visiting the exhibition areas in any order. Each of the spaces focused on one area of creativity – lifestyle, communication, learning, networking – although the exhibits themselves expressed the interconnectivity of the design process.

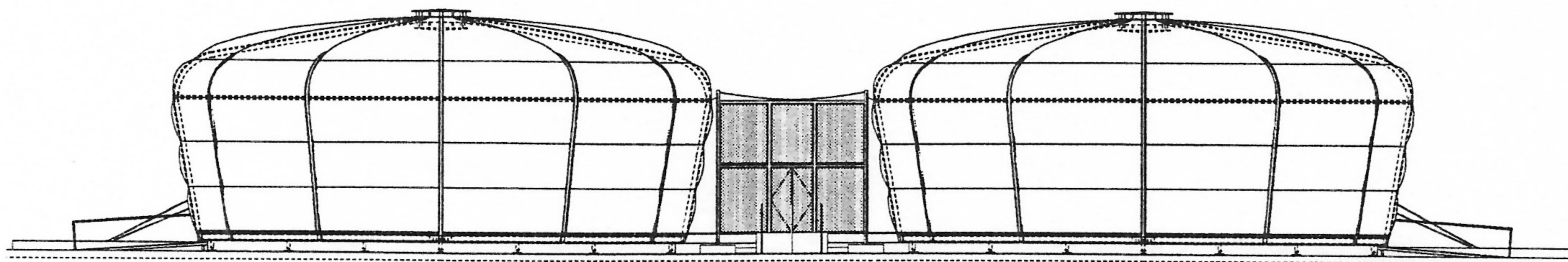
The steel-framed structure was clad in silver coloured, inflated fabric, matched by the exhibition hostesses' silver 'Michelin

Man' jackets. In darkness, the building glowed from within, gently illuminating Horse Guard's Parade and the surrounding, comparatively sombre buildings.

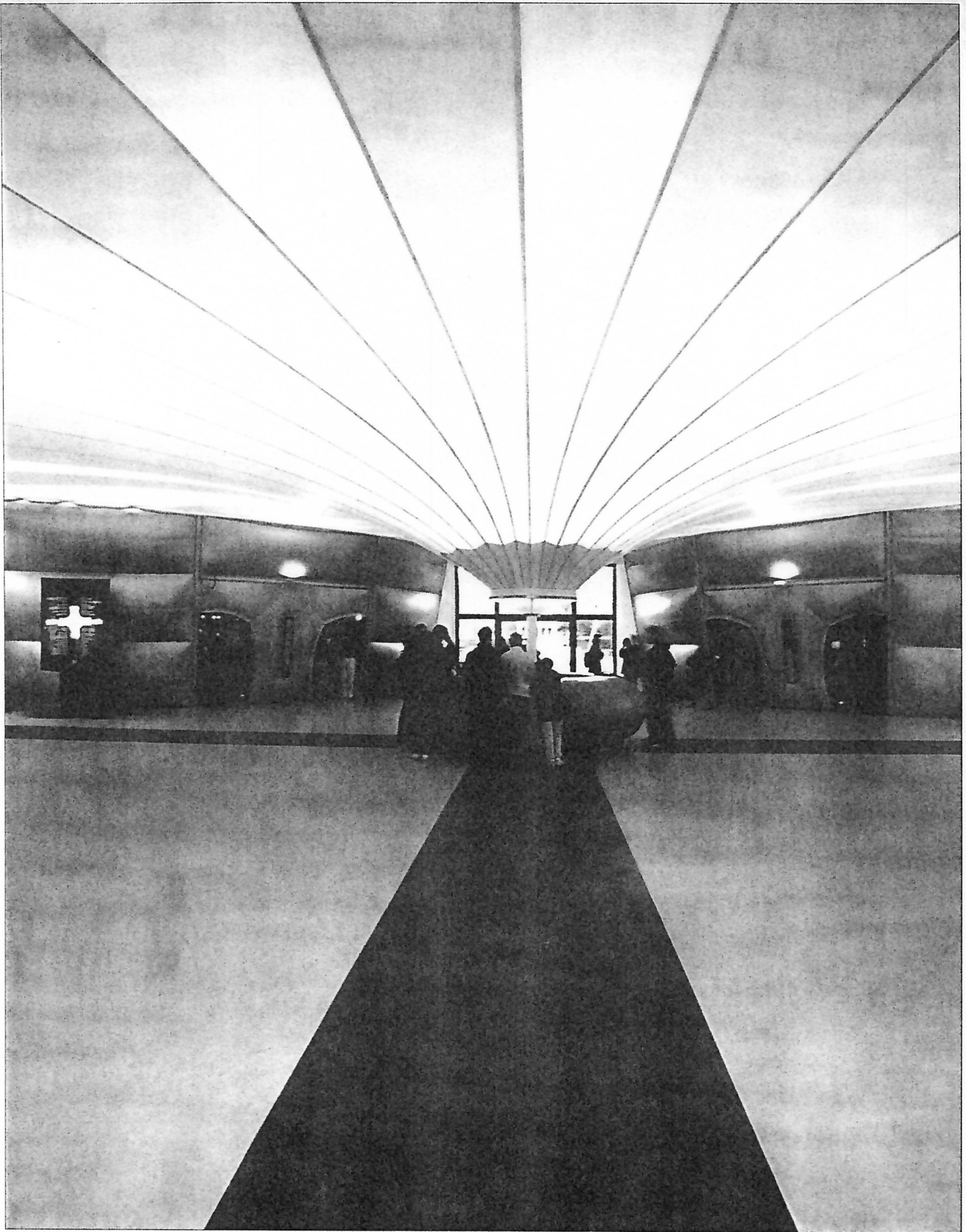
One problem of large-scale temporary buildings is that they cannot make use of conventional foundations either for support or restraint. In this case, engineering consultants Buro Happold advised that the four ramps be made of concrete to anchor the building against wind loads. The main steel structure used simple sections and connections to avoid complicated erection processes.

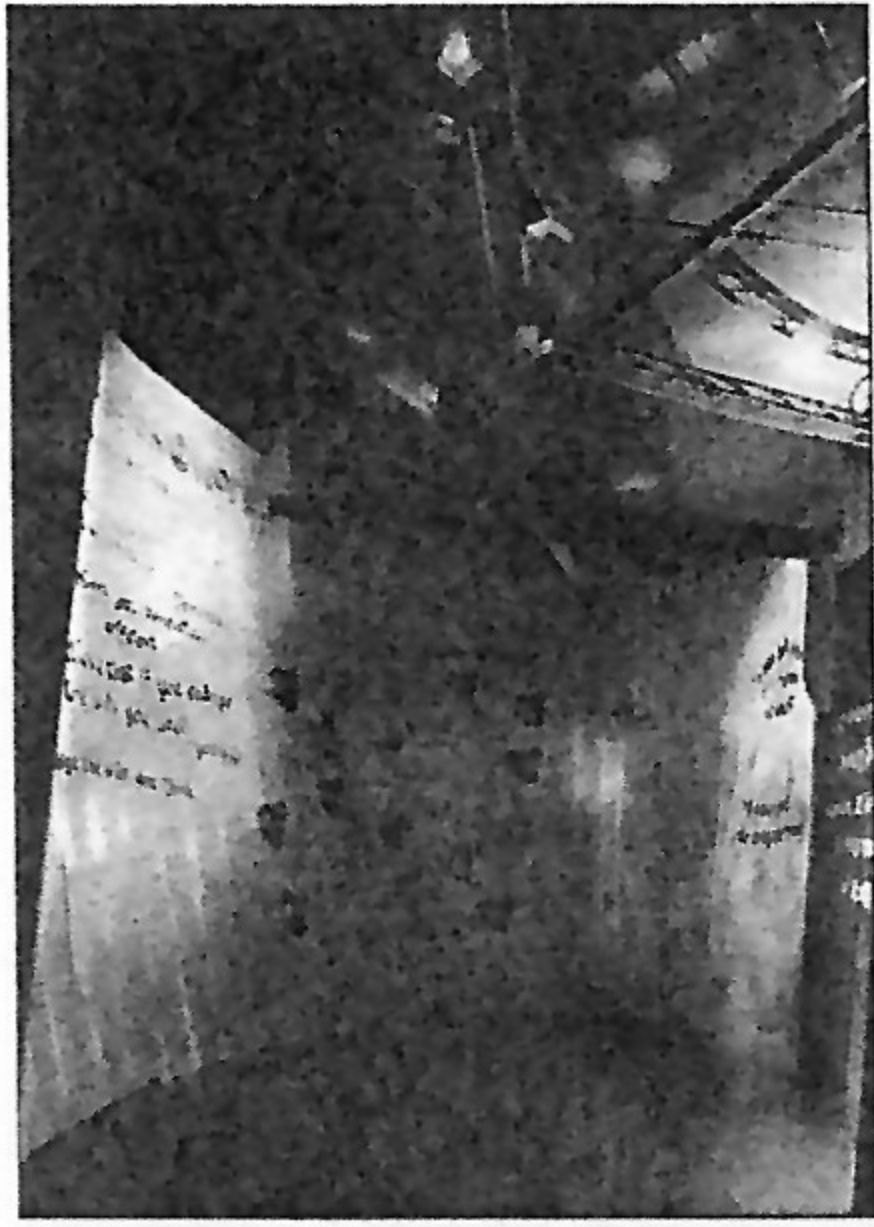
The membrane was inflated with small electric fans and connected to the steel ribs with extruded aluminium sections. A tensile membrane covered the central space using well-tested fabric structure detailing to accommodate both tensile forces to maintain its shape and rigidity and imposed compression forces resulting from wind load.

The main design requirements for the Powerhouse::UK exhibition were that it be easy and quick to erect and dismantle, and economic to manufacture. This resulted in a building that was comparatively heavy for a temporary structure – 60 tonnes in the steel work alone, a fact which is at odds with its apparent lightweight image



Elevation





Powerhouse::UK made use of a site not usually associated with easily accessible drop-in public events; something that should be encouraged. It also highlighted one of the problems of integrating temporary event structures into existing urban infrastructures: the relationship with statutory, government and civil authorities. Unfortunately, the installation of a standard concrete-based, galvanised metal fence around the entire structure (enforced by the security advisors) diminished the exhibition's impact as a wholly designed environment; somewhat deflating the image of a wonderfully designed object temporarily visiting, and enhancing, the qualities of the site.

*Robert Kronenburg*

