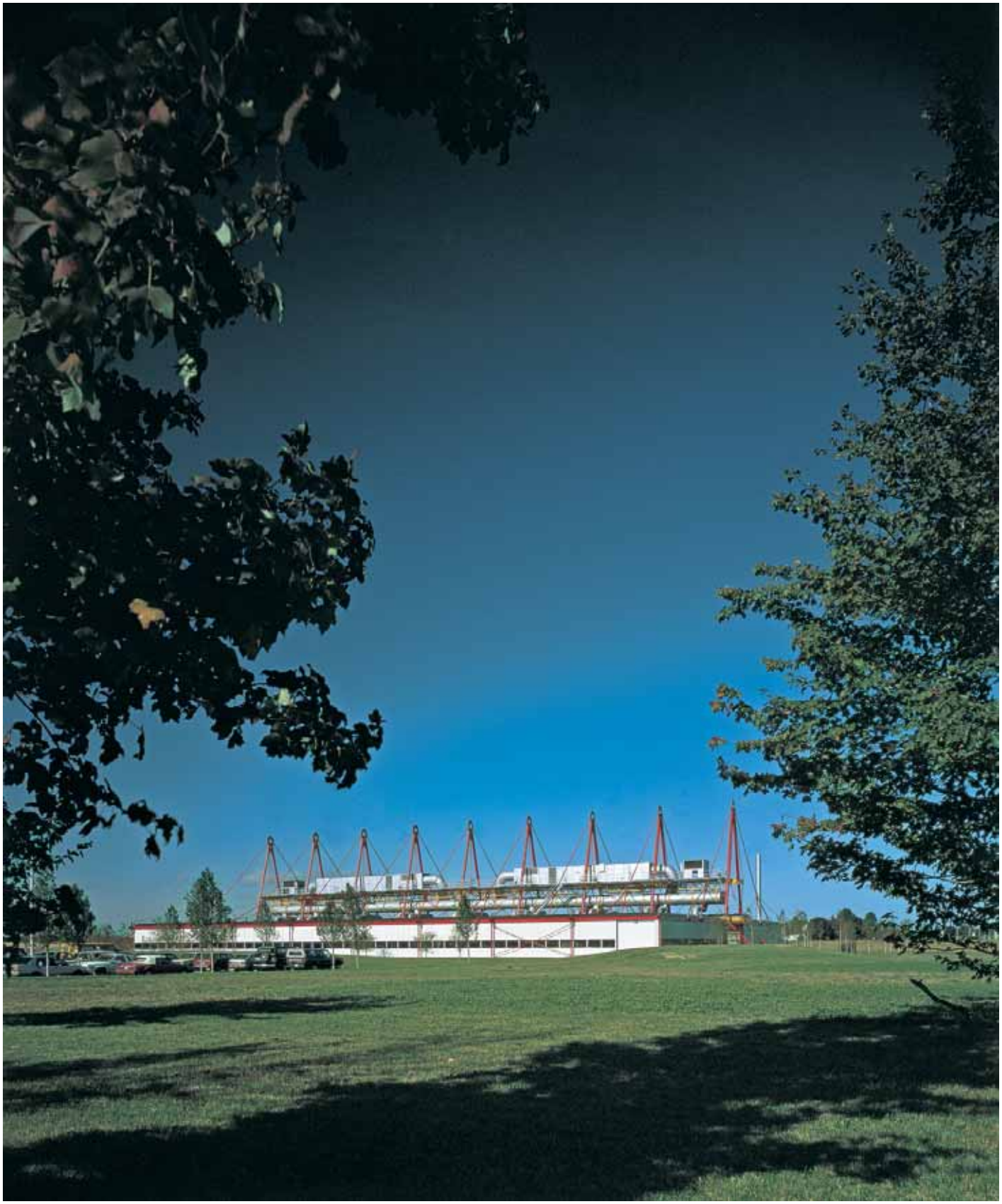
Patscentre



Place/Date
New Jersey, USA 1982 - 1985

Client
PA Consulting Services Inc

Area
4,000 m²

Architect
Richard Rogers Partnership

Structural Engineer
Ove Arup & Partners, Robert Silman Associates (USA)

Sevices Engineer
Ove Arup & Partners, Syska and Hennessy Inc (USA)

Quantity Surveyor
Hanscomb Partnership, Hanscomb Associates Inc (USA)

Associate Architect
Kelbaugh & Lee Architects (USA)

The superstructure, the central spine, the circulation and social space for all occupants together created absolute clarity of both means and function.

The building had to express PA Technology's commitment to innovative technical research and be visible from a distance to the approaching visitor. Other requirements included maximum flexibility to permit further growth, a high level of freedom of circulation, flexibility in the arrangement of offices, labs and services.

The design resulted in a very different structural solution to that of the Inmos factory (RRP), despite visual similarities between the two building. PATcentre is on a smaller scale with fewer services to support between the masts. The span is 26m rather than 40m. The basic building concept is a central linear spine accommodating coffee shop, library and other communal activities. Open plan laboratories, offices and meeting rooms are located left and right of the top-lit spine.

The single-storey suspended steel structure has at its base a portal frame which supports the dominating tubular A-Frame mast, from which are suspended standard steel section beams. Tie-down columns at the outer ends of these beams act in both tension and compression. The standard components formed a kit of parts prefabricated off site and were rapidly erected on site, bay by bay. Site welding was kept to a minimum and stainless steel pin connections were used wherever possible. The plant sits exposed, on suspended cradles connected with trusses to provide longitudinal stability for the A-Frames.

Internally the services distribution is exposed, running along the spine supported by cradles with bracing running at right angles underneath the exposed roof beams.

The external walls are clad with proprietary translucent panels with a horizontal glazed strip so that the whole external wall admits light without the thermal disadvantage of using glass.