In 2010, MJP were shortlisted down to the last two to design a new Science and Technology Museum.

The design responds specifically to its site and to the historical context of Yangzhou. The scheme proposes walls at alternating spacings of 15m and 5m running north to south through the site, following the ‘grain’ of the historic part of the city, and the pattern of historic Yangzhou houses. The buildings are loosely woven into this grid, and the walls are broken and eroded to provide openings, courtyards and gardens. Walls are traditional Yangzhou brickwork with the elements between them a mixture of glass, steel and aluminium.

**Context**

The site lies on the edge of the conservation area which is characterised by its beautiful landscape and well preserved historic buildings and gardens.

Our design proposals aim to respect and enhance this setting by:
- allowing the landscape to permeate into the new buildings
- using a planning arrangement which follows some of the principles found in the historic houses, adapted to suit contemporary uses
- using traditional materials within a modern architectural language

The walls in traditional Chinese gardens not only contain the courtyards like external rooms, providing shade and privacy, but also create surprise by revealing successive ‘rooms’ slowly through carefully formed openings which frame views and vistas.

Within this context it is also our aim to create an exciting twenty-first century development, with efficient functionality, a ‘state of the art’ science museum, which is highly sustainable.
The scheme proposes walls running north to south through the site, following the ‘grain’ of the historic part of the city, at alternating spacings of approximately 15m and 4.5m. The set of buildings is loosely woven into this grid, and the walls are broken and eroded to provide openings, courtyards and gardens. The walls are traditional Yangzhou brickwork, the paving is traditional granite, and the elements between the walls are a mixture of modern materials; glass, steel, aluminium (together with hardwood joinery). On the west side the buildings step down into the green landscape with a series of landscaped terraces.

The design breaks the brief down into three primary building groups containing synergetic uses;
- the science and technology museum with the health and safety exhibition
- the conference centre together with public training facility
- the women’s and children’s centre with the youth centre

The dining facility is located centrally, below ground, easily accessible to all, and the administration offices are located partially above the entrances to the exhibitions and conference centre, and partially in the women and children/youth centre.

Each of these three components has a street entrance and frontage. The exhibition centre is prominent on the main road, revealing some of the excitement within, together with the conference centre. The women’s children and youth centre are on the quieter western side by the moat. Vehicles access the site discretely only along the northern edge, to the underground carpark and delivery area.

Within the grid arrangement described above, the primary ‘served’ accommodation all lies in the 15m wide zones. The circulation spaces all lie in the 4.5m zones.
The science/technology museum and the health/safety exhibition share the same entrance, ticket office and security control. The plan arrangement allows an efficient flow of people through these busy areas. The exhibitions are independent of each other; the health/safety exhibition is on the ground floor with the science and technology above. The exhibition spaces in both are arranged in a circuit starting and finishing at the entrance without needing to double back through the spaces previously visited.

Science and Technology Museum

In the centre of the science and technology museum is a large, double height, 13m high exhibition area, in which large scale exhibits can be displayed, with the potential to create a breath-taking central display. Natural light can be used in this space if desired or can be blacked out. Exciting views are possible from the arrival area and from the balconies looking across the exhibition, and the central exhibition space looking towards the perimeter spaces. The temporary exhibition is located at the beginning of the exhibition.

The perimeter display spaces are typically 23m x 15m, designed for ‘black box’ displays. Between them are intermediate circulation spaces leading to bridges, escalators, stairs, lifts, wide enough for ancillary wall displays, and with the potential for natural top lighting. The aim is to create a strong spatial structure with plenty of flexibility. On the west side is a cafe/rest area looking over a landscaped roof terrace where we propose that suitable exhibits could be displayed outside.
Health and Safety Exhibition

The display spaces are typically 21m x 14.5m with intermediate display spaces, leading to stairs and lifts. The health and safety training facility is located within the exhibition and could be entered independently from outside if desired. Naturally lit study areas are located on the west and south sides looking out to sunken gardens.
The conference centre is located on the corner, adjacent to both roads, and therefore easily accessed by the large numbers of conference delegates. The foyers are glazed along the east elevation through which the sculptural form of the main auditorium is visible. The smaller auditorium will stand like an island below the entrance foyer and the large auditorium, with foyers at its sides which open onto sunken gardens and extend up to the ground floor above. The foyer will be designed to appear as a continuation of the courtyard. Extensive glazing will provide a clear view right through the foyer to the other side of the building, with the curving soffit of the large auditorium suspended overhead.

The public training rooms are at the lower ground level. It is possible that, on occasions, these rooms could be used as additional break-out rooms for conferences. Back-stage accommodation for speakers is located adjacent to both auditoria.
01. Diagram of layout showing two auditoria
02. Aerial View
03. South Elevation
04. East Elevation addressing the road
The two facilities share a centrally placed entrance and are each occupy separate wings either side of a secluded courtyard. The music and performance spaces, which require acoustic isolation, are in the basement. The art and craft studios, which benefit from north facing rooflights, are on the top floor. The children’s theatre can be entered by members of the audience from the courtyard as well as from within the building. The theatre foyer is arranged so that it can be used as an exhibition space for artwork produced in the youth centre.
01. Aerial View
02. South Elevation with central entrance courtyard
03. North South section
04. South Elevation
05. East West Cross Section