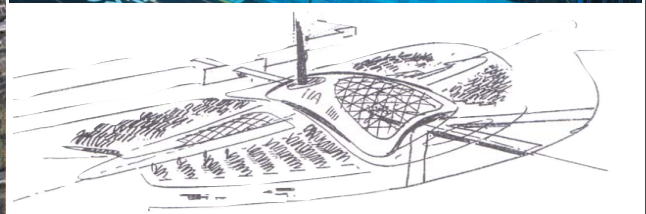


BATTLE McCARTHY®

Consulting Engineers & Landscape Architects



PROJECT:

Incheon International Airport Transport Interchange, Seoul, Korea

CLIENT:

Incheon International Airport Authority

ARCHITECTS:

Terry Farrel & Partners

BM SERVICES:

Concept Sustainable Design and Building Services Engineering

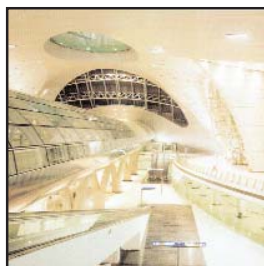
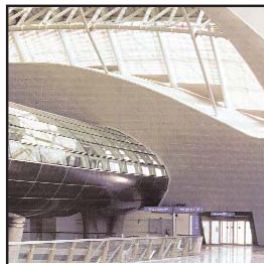
VALUE:

\$415 million

DESIGN BRIEF

The transit hub acts as a feeder and distributor of traveller using Incheon International Airport. It connects the airport's predicted 100 million users to the 5000 parking spaces, buses and rail lines under construction, linking back to Seoul 30 miles away.

The building is a freeform shape, that serves to direct and ease the flow of people and their baggage.



DESIGN INITIATIVES/ACTIONS UNDERTAKEN

The Incheon International Airport is a major transport hub for Soeul. It houses 3 rail systems, bus station, taxi and car rental centre and a hotel. The airport was completed in 2002 and proved vital for transport during the FIFA World Cup.

The 3 million sq.ft. airport is constructed on reclaimed land on two isalnds off the coast of Soeul and is expected to carry 50 million passengers per year. Two terminals have been built and there is further land available for expansion.

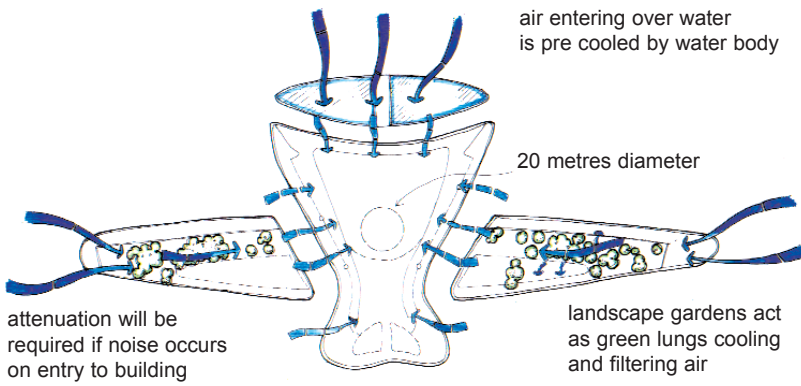
A deep basement houses the railway lines and a large carpark which allows for a large ground level landscaped park. A large hall links the two terminals under a large 180m clearspan sculptural aerofoil roofIncheon international airport's transport interchange is a complex clearspan form, bisected by walkways and transport lines.

The main halls, daylit from large rooflights and areas of façade glazing, are otherwise clad in triangular aluminium panels. Ventilation is achieved in the main hall via a 20m diameter opening underneath an aerofoil, designed to channel winds over the opening, drawing warm stale air out of the building.

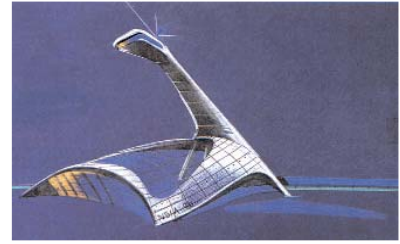
The complex form was created by manipulating digital modelling techniques alongside physical models created by a hat-maker.

Battle McCarthy were involved in helping deliver concepts and strategies for the low energy design of this transit hub, through the competition and design stages.

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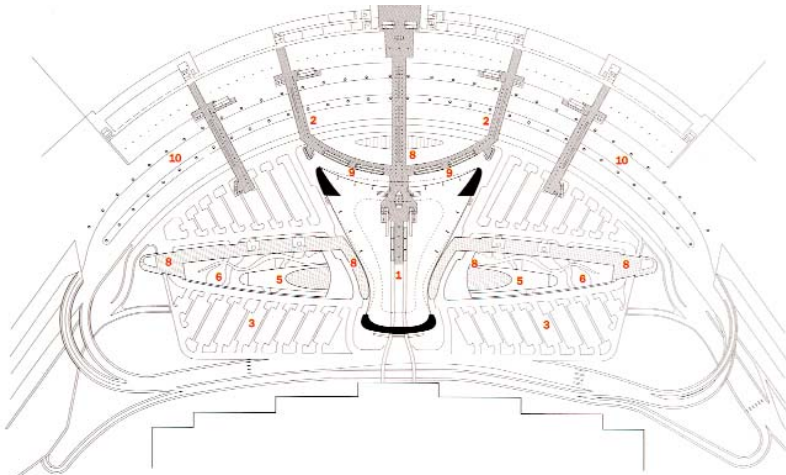
Early schematic diagram of air movement through the building. Air is exhausted via the 20m diameter oculi over the centre of the main hall, causing fresh air to be drawn into the building from the landscaped courtyards, featuring indigenous landscape planting and pools.



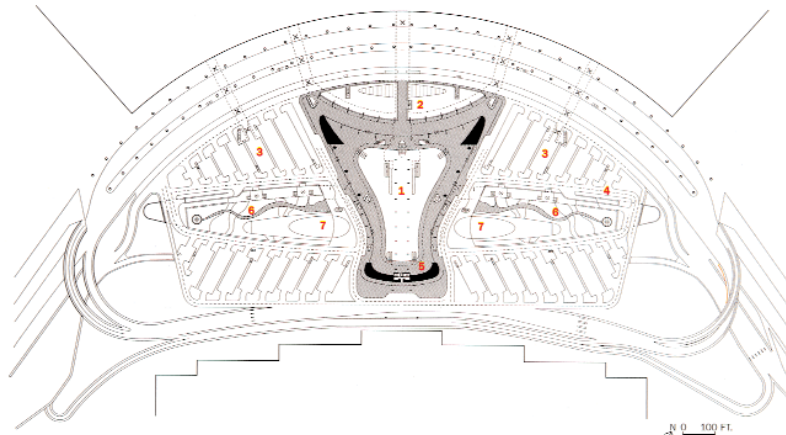
Concept



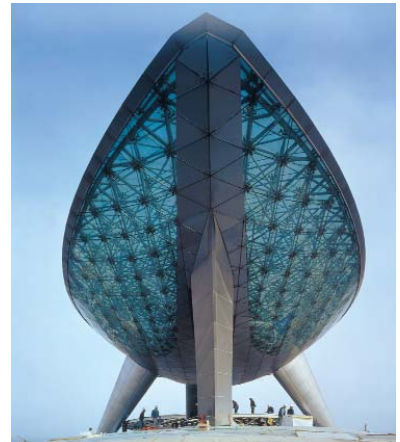
Landscape courtyards



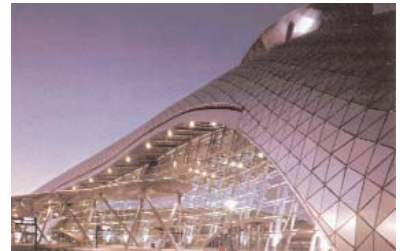
Upper level plan



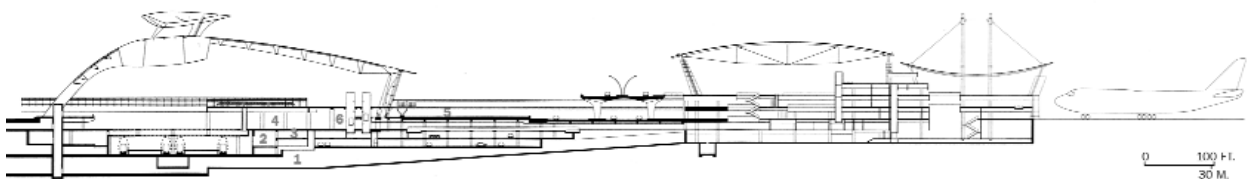
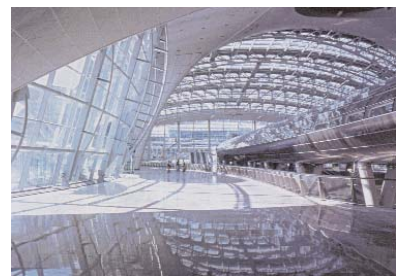
Ground level plan



Rooftop aerofoil under construction



Exterior (above) and interior (below) showing extensive glazing and daylighting levels



Long section through interchange (left) showing the layers of transport infrastructure and links to the terminal (right)