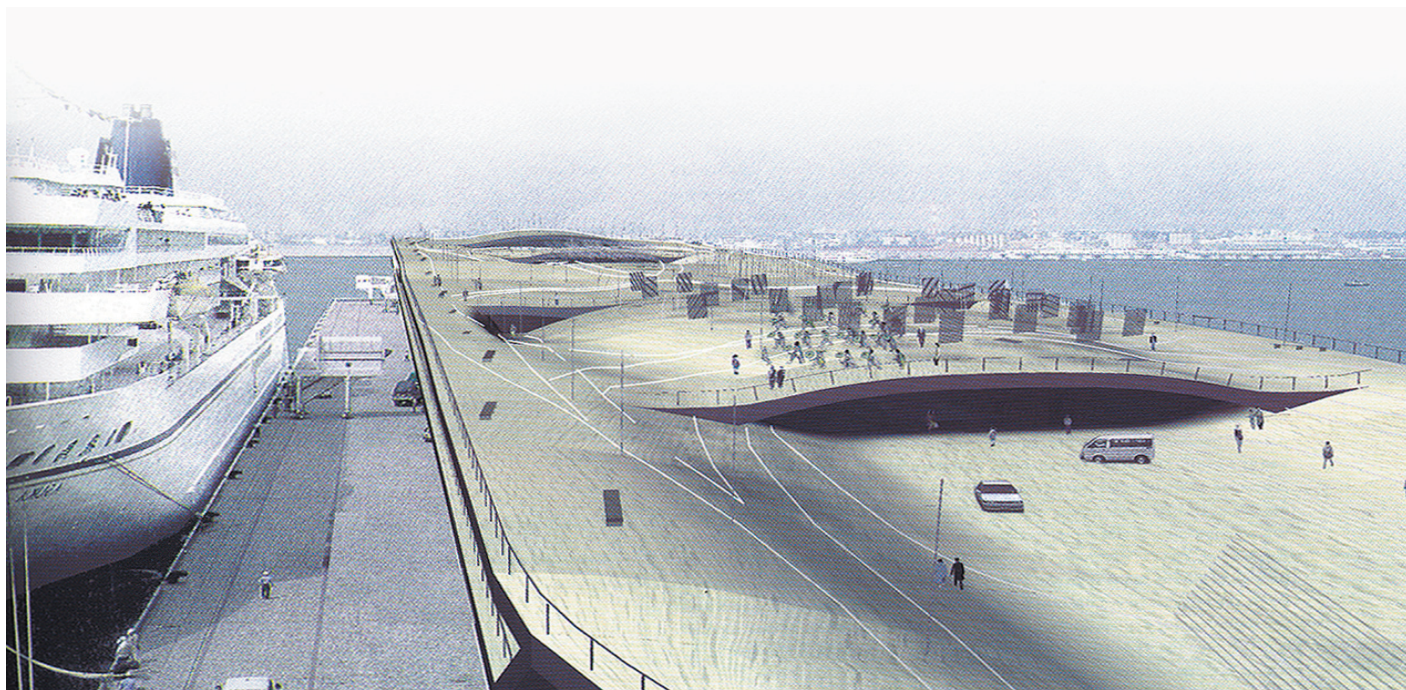


Yokohama Port Terminal

Foreign Office Architects

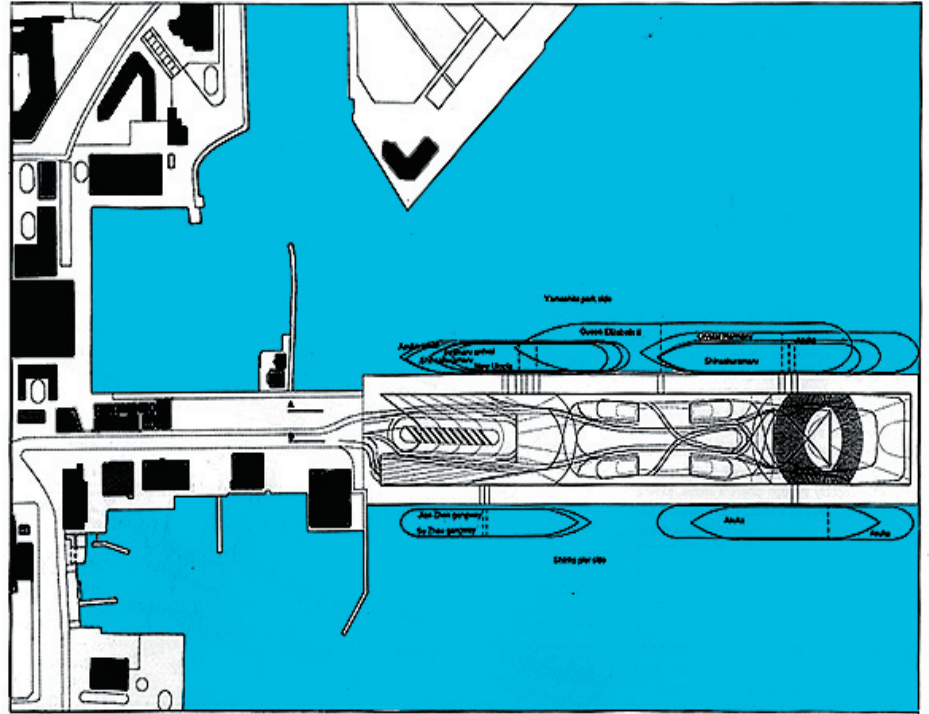
Yokohama's Osanbashi Pier has been a fixture on the Tokyo Bay since 1894, connecting with the Pacific Ocean and providing Japan with a marine gateway to the world. In 1988 the pier fell under construction and in 1996 a competition was held for a new passenger terminal. The Foreign Office Architects (FOA) won the competition and the new terminal should be fully realized by November of 2002.

The steel frame structure was designed with the beautiful scenery of the port in mind. It is a three level facility of a gentle curved form. The occupiable roof curves back in to form the ceiling of the level below and then again to form the floor. The inside space is barrier free without columns or beams and the vertical circulation is accomplished through ramps and elevators.

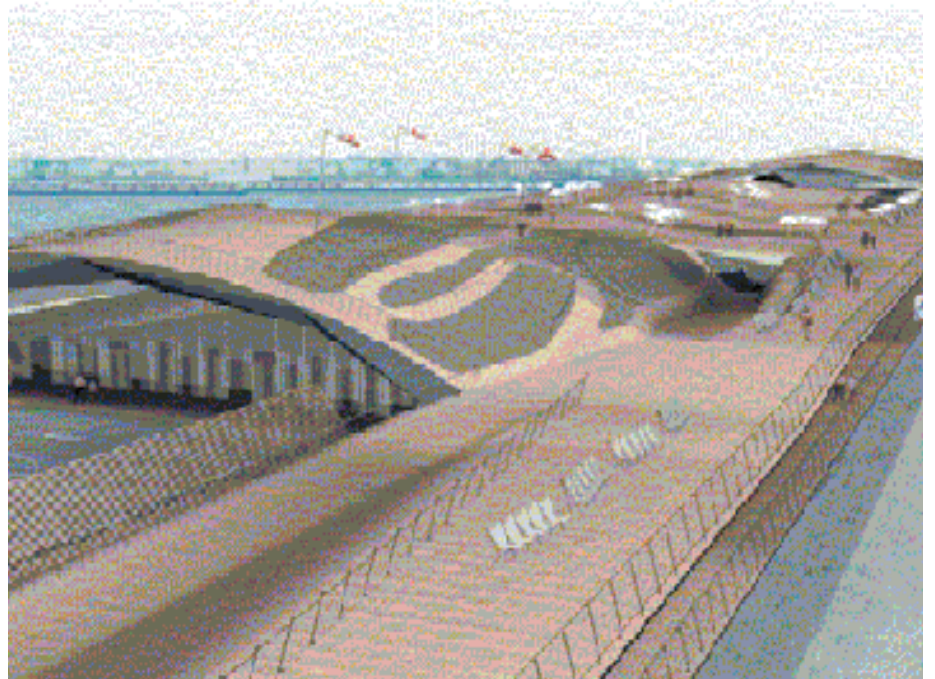


site and general

The major pier possesses the ability to harbor vessels of varying sizing including the largest passenger ships. The port has both pedestrian and vehicular connection to the mainland. The seamless transition presents an "inherent dichotomy between global system of transport."

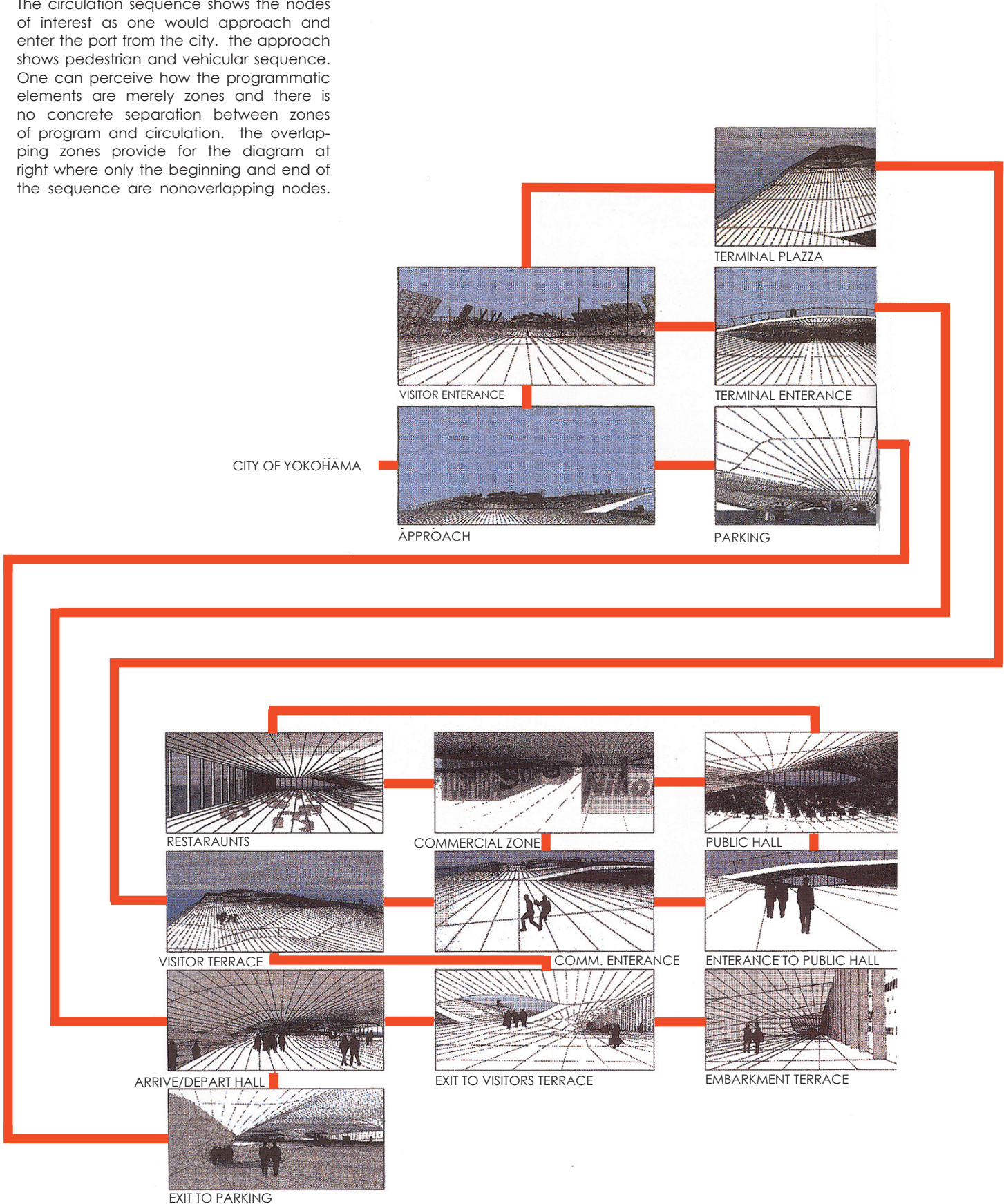


- Basement- machinery rooms
- First floor- parking
- Second floor- passenger terminal, multi-purpose space
- Roof- roof plaza, visitor's deck



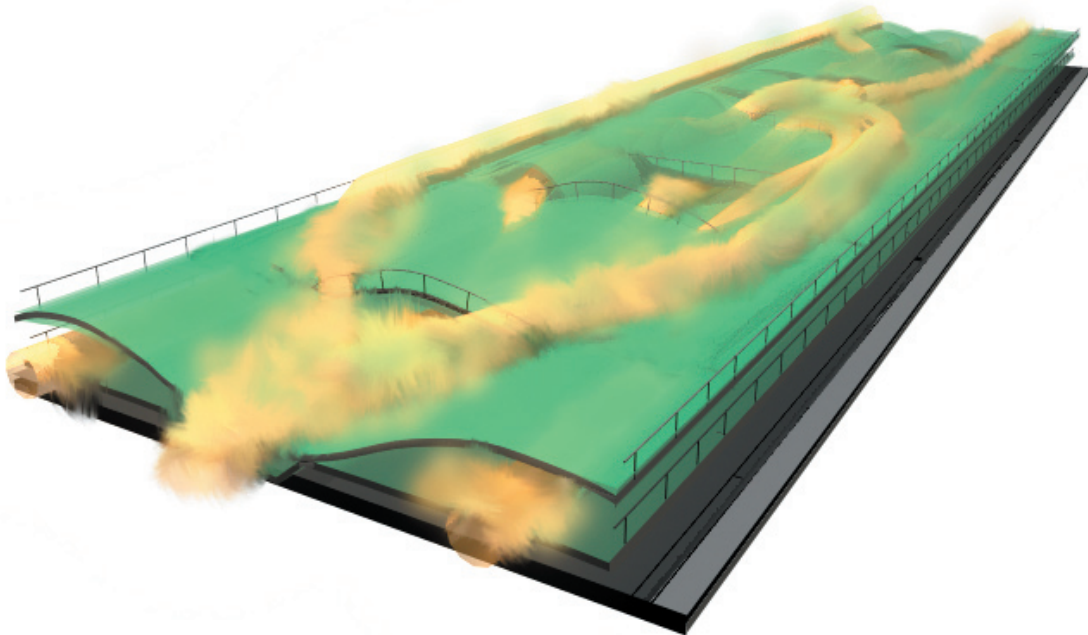
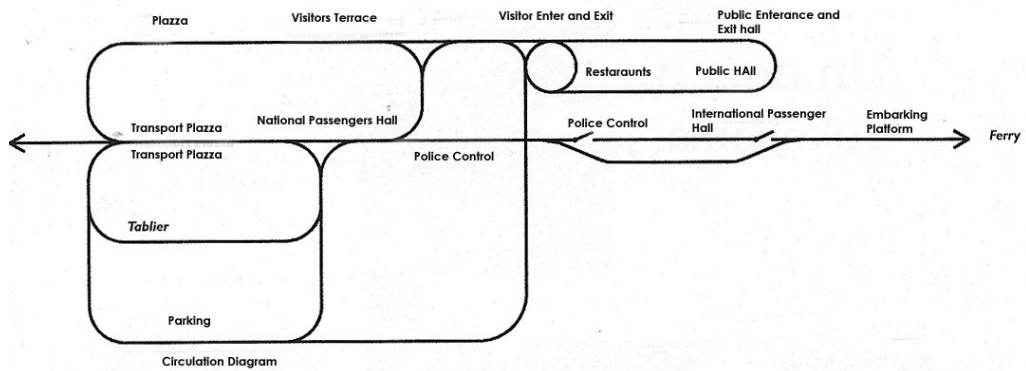
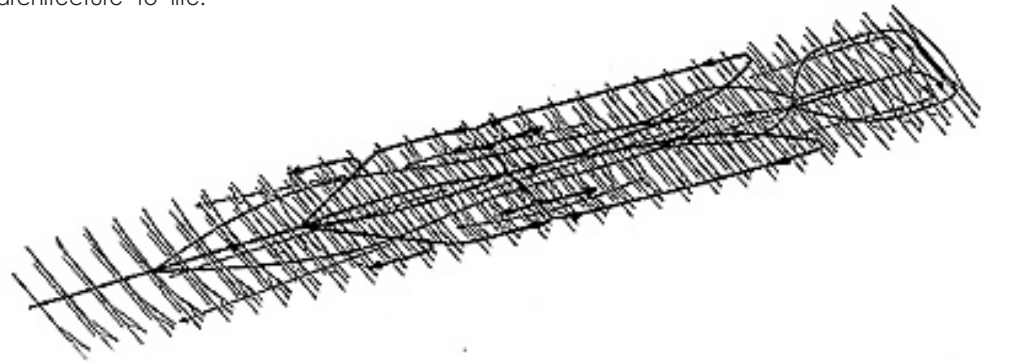
CIRCULATION SEQUENCE

The circulation sequence shows the nodes of interest as one would approach and enter the port from the city. the approach shows pedestrian and vehicular sequence. One can perceive how the programmatic elements are merely zones and there is no concrete separation between zones of program and circulation. the overlapping zones provide for the diagram at right where only the beginning and end of the sequence are nonoverlapping nodes.



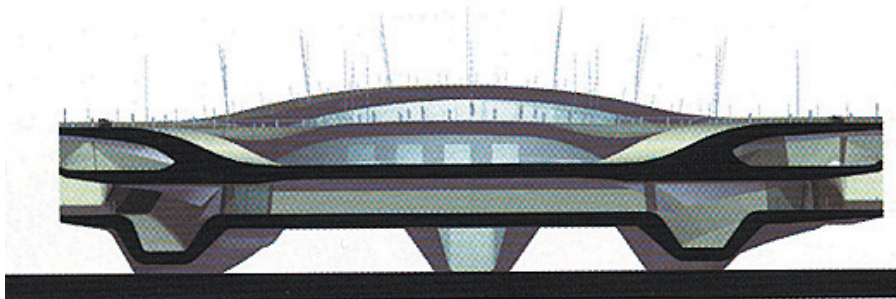
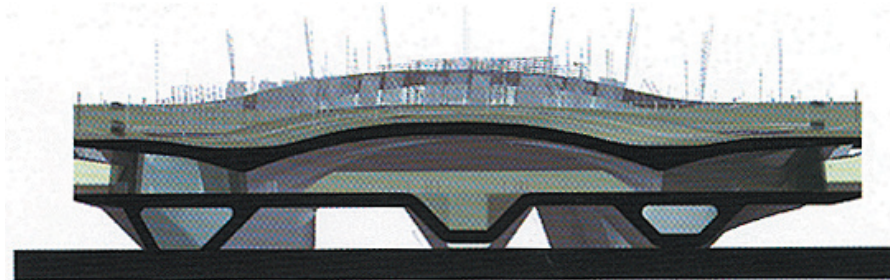
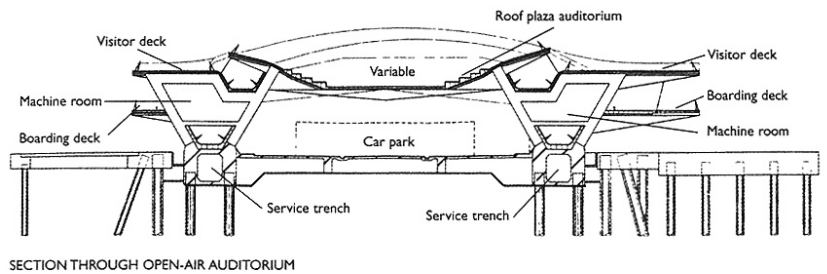
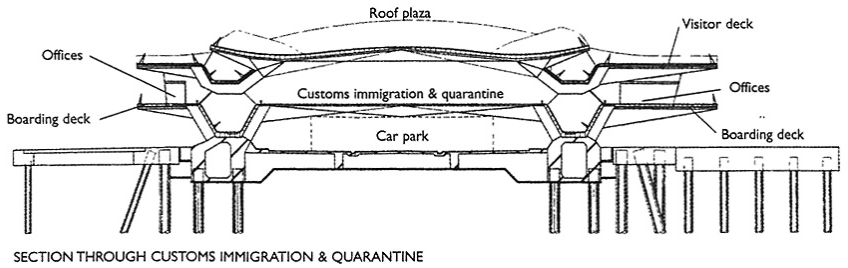
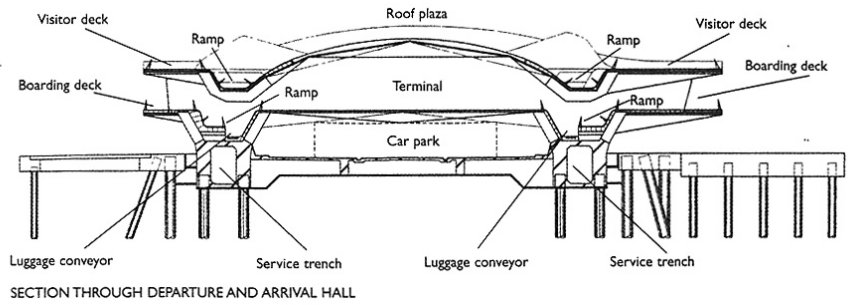
Circulation

The utilization and perception of the space is constantly modified by the size and arrangement of the ships. The major circulation paths become evident during high traffic times but the gentle curves of the structure allow people to flow almost completely unrestricted. The two distinct flows are that of embarking and disembarking, the two overlap constantly, and adding minor circulatory flows such as visitor and passenger pick up, completely bring the architecture to life.



Sectional Evaluation

As the structure takes shape, its extraordinary form becomes apparent both externally and internally. The working sections and earlier conceptual sections indicate the innovative geometry. These geometries expose the abstract bands of space that are used by the architects, along with folds in the ground that are translated into enveloping structures, in one big operating platform working in an active and efficient system. For example, the piazza situated at the center of the project has not only the function of channeling the flow of travelers but also of producing a field of stresses likely to incite them to explore various directions. The architects conceived and saw this as projecting the urban intensity of Yokohama on the inside of the port itself, an element as significant of their approach to the project as the philosophical and technical prerequisites that they have developed and systematically apply.

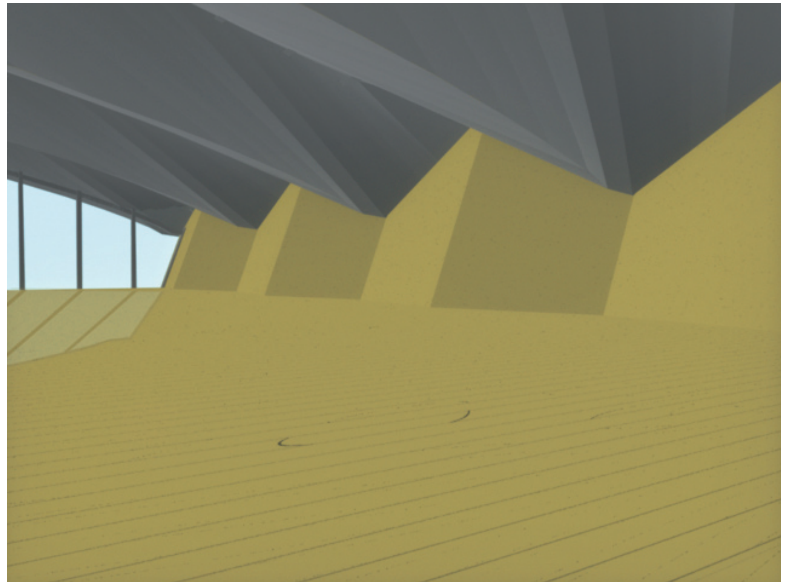


Lighting

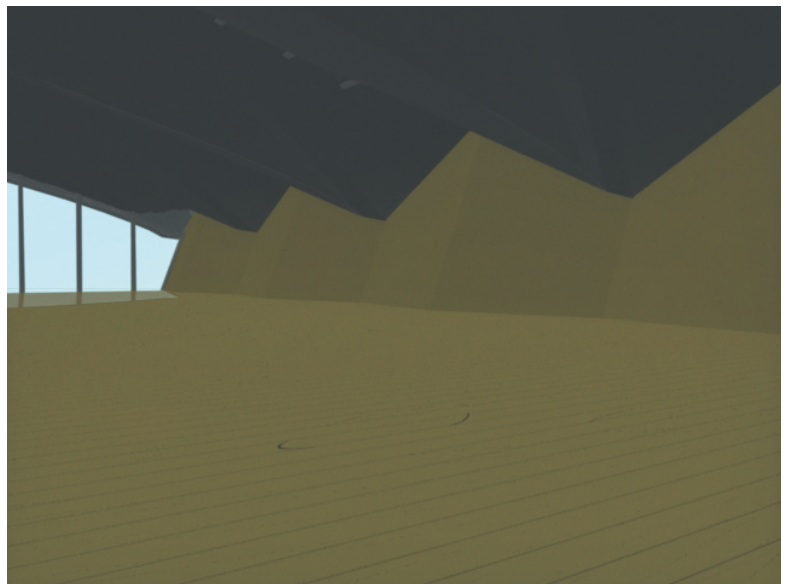
The immense upper deck is a rolling landscape of timber and grass designed as a new public space for Tokyo. This roof then folds back into itself. The principal of the folded plate has an amazing coherence, with the public realm twisting from outside to inside to form ramps in the internal areas. This puts the arrival and departure hall (pictured at right) in darkness at much of the day. This fundamentally humanizes the architecture. The origami ceiling skin coupled with strategic lighting is able to bring the space to life especially during times of darkness. The dark curves of the arrival and departure hall present a dramatic contrast to the sunlit curves of the roofscape above.

The diagrams at right show the arrival and departure hall at three different stages of the day. The first stage is approximately 6 am when the hall actually experiences the most natural illumination. (The time is meant to represent a time an hour or so past sunrise, which changes with the seasons) The second diagram shows the hall during the noon hour when the sun is at it's peak in the sky and the hall becomes a 'bat cave.' The final stage represents a time following sunset where the hall is, of course, dark and one can begin to see the effect of the lights on the origami ceiling structure.

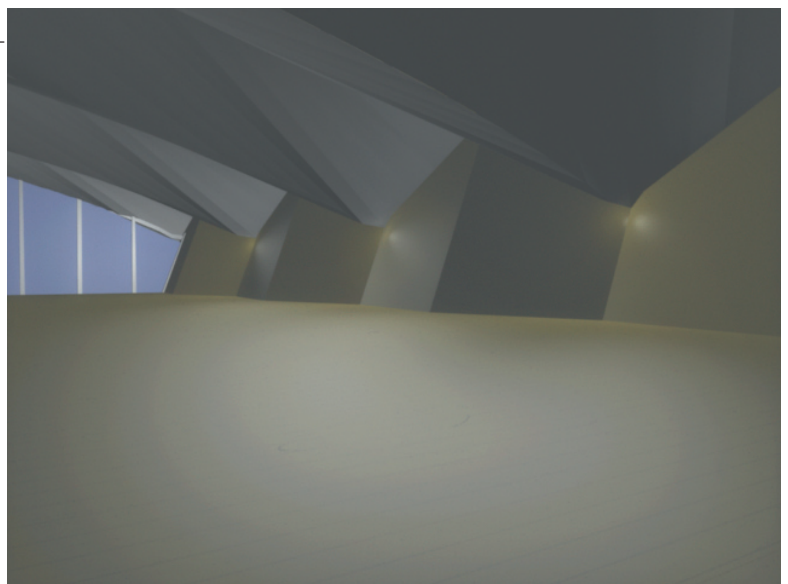
following sunrise
(apprx. 6am)



sun at it's peak
(noon)



no natural light
(light effect on ceiling/ 8pm)

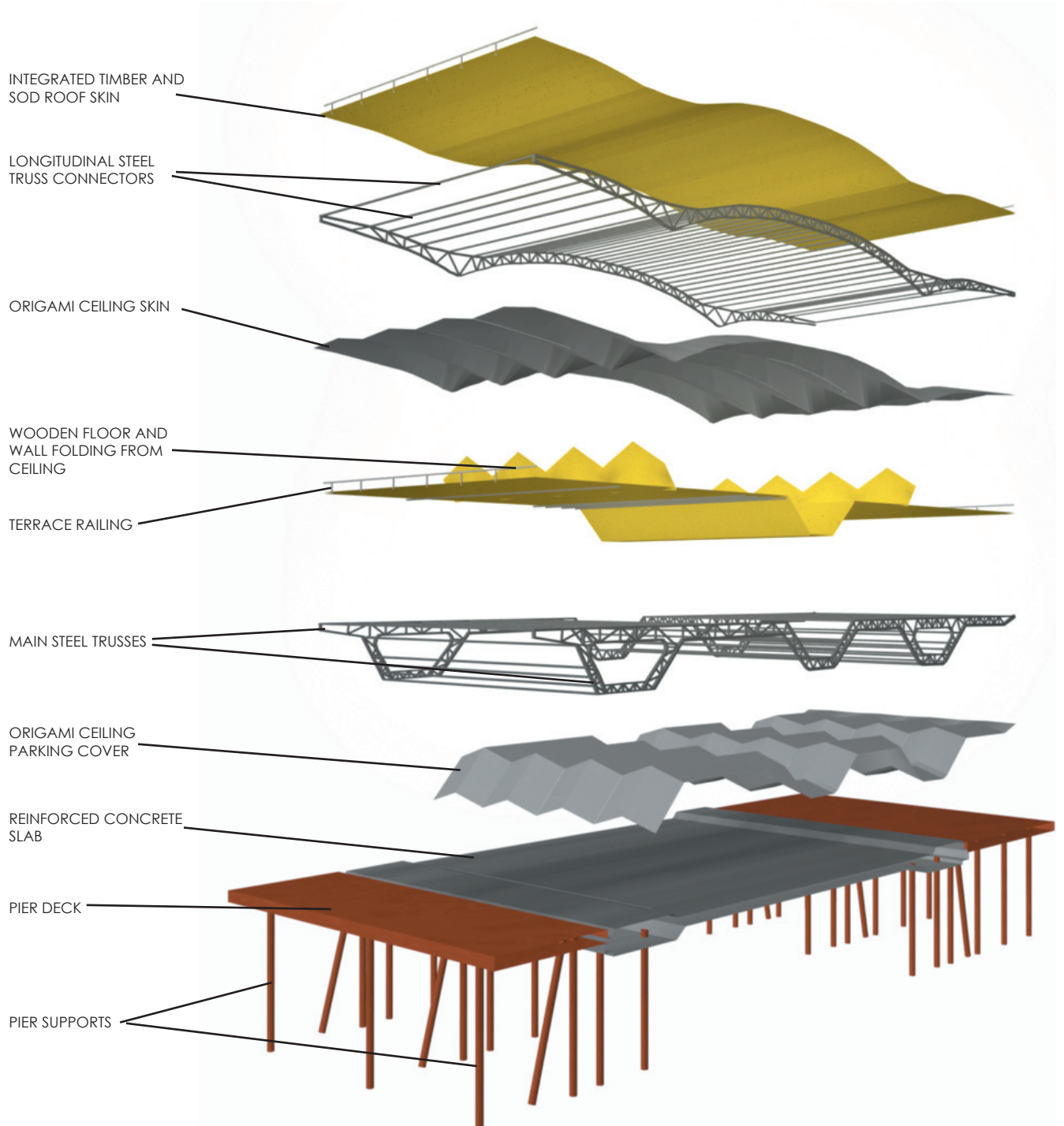


Axon

The design sought to encompass the general functional imperatives of the cruise terminal (as a smoothly functioning link between land and water transport) and the specific civic possibilities suggested by the pier configuration itself.

The structure was conceived as an incomplete or partial building -partial, both conceptually and formally, acknowledging that such programmes frame thresholds in two distinct yet overlapping continuums: the cruise terminal cycle and the buildings civic role as a place of rest and recreation.

The terminal is a shed building measuring 412 meters in length and composed of 27 steel trusses averaging 42.5 meters in span and placed at 16 meter intervals. The trusses are joined longitudinally by trussed members of conventional configuration, and purlins carrying, either metal cladding or glazing. The trusses are carried on concrete piers extending from the basement parking level through the apron to the surface of the main level. The large shed employs a unified form through repetitive structural units to enclose a single homogeneous space. The transformation yields a complex of spaces that smoothly incorporates the multiple terminal, civic and garden programmes within and below its span.



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