

Taichung City Cultural Center

Taichung, Taiwan 2013

The proposed master plan for Taichung Gateway Park did not anticipate the need for a cultural centre in its district. Thus, the original park's design greenery extended to the edge of Park Avenue 2 and with its proposed surrounding buildings created an enclave that successfully terminated the park. Realizing the strategic importance of this northern parcel, for both circulation and District's imagery, a City Cultural Centre would be introduced to become the new forefront of the Taichung Gateway District. The main approach to the site from the northern Transportation Centre establishes a clear relationship of hierarchy. Taichung Gateway District already has established the 300M tall Taiwan Tower at the southern segment of the district to be the main icon of the development.

To fully address all the necessities of the urban context, a Permeable Building provides the right settings for the design solution. The context analysis demonstrates the need to enhance the urban space through the introduction of a plaza. The massing of the program aims to frame and shade an activity plaza while enriching the urban experience through the hybridization of program. The placement of the volumes directs the pedestrian flow and its subtle slopes differentiate and characterize the sequence of open spaces. The surrounding context then engages with these voids and fills them with activity. Thus, the arrangements of the volumes are seamlessly plug-in into the urban context.

Utilizing building integrated plantation is one of the core ideas of the Taichung Culture Centre design proposal. Benefits are not only improved air quality and a reduced carbon footprint on the building resulting from the plants' carbon binding capabilities, but also drastically reduced conditioning needs due to the cooling effect of evaporation chill produced by the plants and the water they store. Large areas of the expansive roof are intended to be planted with extensive greenery. Construction and maintenance can be kept simple as the traditional wood structure facilitates a modular system of inserted planters. The green layer of the roof connects to the main functions by cascading down the courtyard formed in the volume of the library. As a counterpart at the outside of the building, large scale modular planters find place on terraces along the façade of the library making visual connections to green areas omnipresent throughout the whole building.

The widely cantilevering floating roof protects the building and the public plaza effectively from solar radiation at high sun angles reducing heat load significantly. Consistently developing and abstracting the primary structural system, the building volumes are surrounded by layers of stacked wooden sticks like the trunk of a tree by branches. The self-insulating characteristics of wood play a key role in the structural concept of the Taichung Cultural Center. Thermal bridges created by structural elements penetrating the building envelope thus are eliminated reducing the loss of thermal energy to a minimum without any additional complicated and susceptible insulation measures.

Floor area:	3 200 sqm.
Type:	Culture
Client:	Taichung City Government
Collaborations:	Architekturbüro Paul Böhm, Architect Giorgio Emprin
Status:	Invited competition

