Design for the House of Arts and Culture

- 1. The urban and architectural objectives of the project
- DYNAMISM in SIMPLICITY / Urban design concept, Sustainable design



We accept integrity simplicity and quality of the House of Arts and Culture [HAC] program as a first priority in design. We avoid making an aggressive building form which could destroy

figure 1: a perspective from the entrance

the usability as well as excessively impact the cityscape. The HAC neutral appearance is derived from our search for the form informed by programmatic content yet appealing all people of Beirut. In keeping the shape as a primitive and simple boundary which can easily blend with the existing urban fabric, our design approach is to encase all the functions in an algorithmically made envelope which can have an ability to dynamically **INTERACT with the inside program and the outside world** (see figure 1.) The size of the skin perforation acting as windows has been determined by inside activities, urban and environmental conditions. Because of the richness and diversity of information

embedded in those conditions, the building envelope becomes dynamic reflecting the inside program, and having the unique appearance to its site. Besides the aesthetic effects, the envelope



figure 2: the night view

can act as a **SUSTAINABLE WALL** which can give sufficient light for each functions calculated from the embedded algorithm of the sun condition. In addition, at night time, the light emanating from the perforated skin envelope that registers changing interior activities can be very iconic and highly visible to public (see figure 2.)

2. Functional and spatial organization

- INTARACTION in ISOLATION / Circulation design

The spatial organization of HAC design direct product of answering to the two key questions. 1) How to create truly separate spaces for each required functions? 2) How to create attractive circulations to foster interactions between those functions? -- Our design logic to fulfill both requirements is a simple and



figure 3: A diagram of the tacked and shifted boxes

direct strategy of stacking and shifting boxes containing principal functions (see figure 3.) This strategy allows us to make more seamless and dynamic circulations optimizing functional usability while being economical and well within the permissible built up area limits.

- Landscape design / Three gardens

In our design, the three types of gardens play significant role in offering visitors experience and feeling of being inside and outside while prompting interaction with the nature (see figure 4.) Three types of garden include: 1) **Ground garden**: The reserved for landscape area has been extended. Various types of trees are planted on the grounds around the building to make a visual and special continuity with the piazza. 2) **Wall garden**: The part of the east side of the building wall are designed for a vertical green garden which acts as a thermal insulation as well as diffusing screen giving soft lighting to the inside of the building. 3) **Roof garden**: This garden located on the top of the

building includes the outdoor cafe and the outdoor exhibition spaces connected to the museum area. All these green gardens require little maintenance and depend on a water efficient sustainable drip irrigation system installed in the building.



figure 4: Three gardens

- Adaptability / Space system for the large performance hall

- All the seating areas are designed as a **hinged units** which can accommodate changes in the floor levels and the layout of the seating while adapting to various activities including opera, musical, kabuki, contemporary play, conference and other events. The hinged system seating is stackable to the very compact size and stored on the east side of the hall when not in use.

- The portion of the floor consisted of **two layers** which can accommodate backstage spaces, a rotating stage as well as a orchestra pit.

- Financing mechanism / Commercial rental zone

To keep the centre active, we proposed to add a new space area of commercial rental zone, which is a rentable area for various activities such as parties, shops and special events. Those spaces, located near a circulation area, can activate and warm up the atmosphere.

3. The suggested technical and building solutions

- NEW in TRADITION / Technical built solutions

The algorithmically designed outside surface requires an computational technique to design and fabricate, however, the strategy for the technical built solutions is a simple, traditional brick assembling. The **modular brick** is made out of a precast concrete (see figure 5, 6.)



figure 6: the wall consisted with modular bricks